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SURFACE WATER SUPPLY *of the* UNITED STATES 1944

PART 4
ST. LAWRENCE RIVER BASIN

Prepared by
Water Resources Branch
Division of Surface Water

In cooperation with the States of
ILLINOIS, INDIANA, MICHIGAN, MINNESOTA
NEW YORK, OHIO, VERMONT, AND WISCONSIN
and other agencies

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ILLUSTRATION

Figure 1. Gaging-station structures: A, Little Wolf River at Royalton, Wis.; B, Black River near Boonville, N. Y. 3

SURFACE WATER SUPPLY OF ST. LAWRENCE RIVER BASIN, 1944

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1944. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 10,000 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1944, 5,340 gaging stations, including those in Hawaii, were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made during the water year at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged, under the heading "Cooperation," in the introductory matter that precedes the gaging-station records in each volume. In the present volume, the section on cooperation of the second kind appears on page 12.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the runoff is distributed uniformly both as regards time and area.

"Runoff in inches" is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. It is used for comparing runoff with rainfall, which is usually expressed in inches.

An "acre-foot" is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a runoff of 0.0372 inch from 1 square mile.

"Stage-discharge relation" is an abbreviation for the term "relation between gage height and discharge."

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural section, a reach of the channel, or an artificial structure.

"Contents" is a term applied to the volume of water in a reservoir, not including water in bank storage unless so indicated.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical structures in use at gaging stations are shown in figure 1.

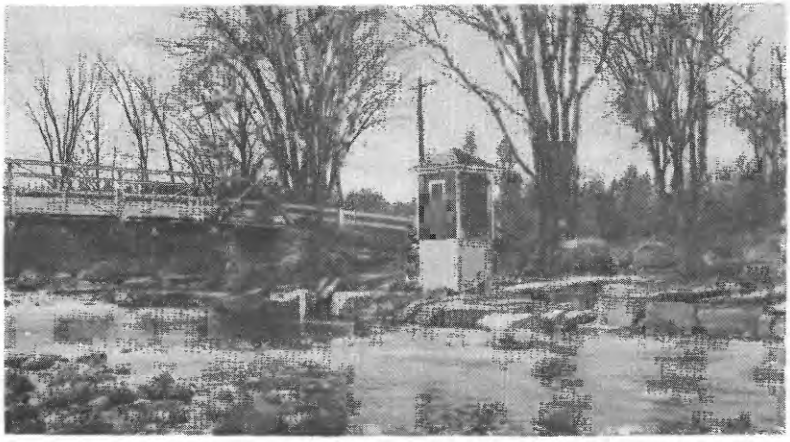
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. At times the stage-discharge relation for a station may be temporarily changed by the presence of aquatic growth or debris on the control. For such times the daily mean discharge is computed by what is essentially the "shifting-control" method, described above.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage, and from them the rate of change of stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for stations in the same or nearby basins. For those stations at which the stage-discharge relation is affected by ice, the days included in the periods of ice effect either are indicated in the table by symbols referring to a footnote that states this fact or are given in a general note following the table. The days on which discharge measurements were made during or between periods of ice effect, shortly before the first period, or shortly after the last period are similarly indicated by a footnote.

For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating

A. LITTLE WOLF RIVER AT ROYALTON, WIS.



B. BLACK RIVER NEAR BOONVILLE, N. Y.

FIGURE 1.—GAGING-STATION STRUCTURES.

tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude as determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. Selected peak discharges with the times of their occurrence are given, below the table of monthly discharge, for some stations. This supplementary information is generally omitted for a station at which the drainage area of the stream is less than 10 or more than 10,000 square miles or at which, on most days, the peak discharge exceeds the mean discharge by less than 10 percent.

For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing as an essential element a curve representing the stage-discharge relation at the station. For stations equipped with nonrecording gages, the table of daily discharge gives the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For periods of rapidly changing stage the daily mean discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge, not the momentary discharge when the water surface was at crest stage. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents is given. A skeleton table of capacity at given stages is usually given in the first report in which data for a station are published but is omitted from succeeding reports.

TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency measure, the Nation shifted from standard time to "war time," and clock time in the several zones of the country was moved ahead 1 hour, or to 3 a.m. Records of daily discharge prior to February 9, 1942, were computed on the basis of standard time. Records subsequent to that date have been computed on the basis of war time. To convert war time to standard time, subtract 1 hour.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more accurate than the daily records.

Yield at some stations as indicated by monthly means may vary widely from natural yield, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "runoff in inches" are not published unless storage or diversion records are included indicating the extent of the regulation or diversion or unless satisfactory adjustments can be made for changes in contents or reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless its inclusion is indicated. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge presents in summary the distribution of the flow past the station. The table of daily discharge affords opportunity for more detailed studies of the variation in flow. As further observations in each succeeding year may be expected to throw new light on data previously published, it should be borne in mind that such data are subject to revision in succeeding water-supply papers.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.

Part 6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be obtained or consulted as explained below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:
Albany, N. Y., 528 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 410 Grand Theater Bldg.
Augusta, Maine, Statehouse.
Baton Rouge, La., 124 Geology Building, Louisiana State University.
Boston, Mass., 939 Post Office Building.
Charleston, W. Va., 408 Union Building.
Charlottesville, Va., House G, Dawson Row, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., 105 Engineering Building, University of Maryland.
Columbia, S. C., 207 Creason Building.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 205 Underwriters Building.
Jackson, Miss., 208 Millsaps Building.
Knoxville, Tenn., 337 Post Office Building.
Louisville, Ky., 531 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
Morgantown, W. Va., 406 Mineral Industries Building.
New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
Ocala, Fla, 304 Post Office Building.
Pittsburgh, Pa., 515 Plaza Building.
Raleigh, N. C., 242 Education Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.
Washington, D. C., Federal Works Agency Building.
Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:
Albuquerque, N. Mex., 723 North Second Street.
Austin, Tex., 302 West Fifteenth Street.
Bismarck, N. Dak., 1301 State Capitol.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 310 Denham Building.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honclulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 349 Statehouse.
Los Angeles, Calif. 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 535 State Capitol.
Pierre, S. Dak., City Hall.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 1002 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 625 Market Street Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 207 Federal Building.
Topeka, Kans., 305 Federal Building.
Tucson, Ariz., 210 Post Office Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams.

Stream-flow data for the years 1884-1901, in reports of the Geological Survey

(A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to September 1890.
12th A, pt. 2	....do	1884 to June 30, 1891.
13th A, pt. 3	....do	1884-92.
14th A, pt. 2	Monthly discharge	1888-93.
B 131	Descriptions, measurements, gage heights, and ratings	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.
W 11	Gage heights	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge	1895-96.
W 15	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
W 16	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1897.
W 27	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
W 28	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4.	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 8. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report, the streams and points of measurement listed appearing in the same relative order as the streams and gaging stations in the body of the report. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 8), contains, for the area covered by that report, a summary of yearly discharge at gaging stations at which 10 or more complete years of record have been collected. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1944

(For basins included see pp. 5-6).

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	56, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934
1942.....	951	952	953	954	955	956	957	958	959	960	961	962	963	964
1943.....	971	972	973	974	975	976	977	978	979	980	981	982	983	984
1944.....	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
b James River only.
c Gallatin River.
d Green and Gunnison Rivers and Colorado River above Gunnison River.
e Mojave River only.
f Kings and Kern Rivers and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River, inclusive.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below mouth of Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

Reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged alphabetically, some by States and some by drainage basins.

Reports containing compilations of records of discharge by States and drainage basins

Report	Period	Water-Supply Paper
STATE		
Alabama, Water powers of, with an appendix on stream measurements in Mississippi.	1895-1903	107
California, Water resources of, part 1, Stream measurements in Sacramento River Basin.	1887-1912	298
California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.	1878-1912	299
California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.	1891-1912	300
California, southern, Surface water supply of Pacific slope of	1890-1918	447
California, Surface water supply of Sacramento River Basin	1895-1927	597-E
California, Surface water supply of San Joaquin River Basin	1895-1927	636-D
California, southern, Surface water supply of Pacific slope basins in	1894-1927	636-E
California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.	1895-1927	637-A
Colorado, Water resources of	1884-1900	74
Georgia, Water resources of	1895-1905	197
Massachusetts, Surface waters of	1845-1915	415
Nebraska, Surface water supply of	1894-1906	230
Oregon, Surface water supply of	1878-1910	370
Texas, Summary of records of surface waters of	1898-1937	850
Vermont, Surface waters of	1875-1916	424
Washington, Summary of hydrometric data in	1878-1919	492
Washington, Summary of records of surface waters of	1919-35	870
Wisconsin, northern, Water power of	1895-1905	156
Wyoming, Surface waters of, and their utilization	1894-1921	469
DRAINAGE BASIN		
Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization	1888-1914	395
Colorado River, upper (Colo., Utah), and its utilization	1897-1927	617
Colorado River Basin (Ariz., Calif., Colo., Utah, Wyo.), Surface waters at base stations in.	1891-1938	918
Columbia River Basin, upper (Mont., Idaho), Surface waters of	1898-1938	916
Great Salt Lake Basin, Water powers of	1889-1920	517
Green River (Colo., Utah, Wyo.) and its utilization	1894-1926	618
Kennebec River Basin (Maine), Water resources of	1890-1906	198
Milk River. See St. Mary and Milk Rivers		
Missouri and St. Mary River Basins (Mont.), Surface waters of	1881-1938	917
New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of	1895-1920	536
Penobscot River Basin (Maine), Water resources of	1904-9	279
Potomac River Basin (D. C., Md., W. Va.)	1895-1906	192
Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of	1888-1913	358
St. Mary and Milk Rivers (Mont., Canada), Water supply of	1898-1917	491
St. Mary River. See St. Mary and Milk Rivers; Missouri and St. Mary River Basin.		
Susquehanna River Basin (Pa., Md.), Hydrography of	1890-1904	109

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Alabama	1895-1915	Bull. 17, Water powers of Alabama	Geological Survey of Alabama.
Arkansas	1857-1928	Stream-gaging Rept. 1	Arkansas Geological Survey.
Colorado	1881-1935	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado.[1]	State Planning Commission, Water Conservation Board, State engineer.
Do	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut	1900-1927	Bull. 44, Water resources of Connecticut	State Geological and Natural History Survey.
Do	1912-33	5th biennial report[2]	State Water Commission.
Georgia	1895-1906	Bull. 16, Water powers of Georgia	Geological Survey of Georgia.
Do	1907-19	Bull. 38, Water powers of Georgia	Do.
Illinois	1908-11	Water resources of Illinois	Rivers and Lakes Commission.
Do	1900-1934	Stream-flow data of Illinois	Division of Waterways.
Indiana	1923-27	Pub. 72, Surface water supply of Indiana	Department of Conservation.
Do	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa	1873-1932	Stream-flow records of Iowa	State Planning Board.
Do	1873-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.

1 Contains records of yearly discharge only.
2 Contains records of monthly discharge in second-feet per square mile.

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	....do.....	Do.
Do.....	1924-28	Report of Division of Water Resources.....	State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	....do.....	Do.
Do.....	1939-41	....do.....	Do.
Kentucky.....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
Louisiana....	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report[2].....	Maine Water Power Commission.
Maryland.....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Do.....	1892-1943	Bull. 1, Summary of records of surface waters of Maryland and the Potomac River Basin.	Department of Geology, Mines, and Water Resources.
Minnesota....	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri.....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Bureau of Geology and Mines.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Missouri Geological Survey and Water Resources.
Montana.....	1889-1911	5th biennial report.....	Office of the State Engineer.
Do.....	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska.....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Hampshire	1889-1922	Annual and statistical report, vol. 12[2]...	Public Service Commission.
New Jersey...	1891-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
Do.....	1934-40	Special Rept. 9, Surface water supply of New Jersey.	Do.
New Mexico...	1888-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1889-1923	Bull. 34, Discharge records of North Carolina streams.[3]	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams.[4]	Do.
North Dakota.	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1882-1938	Surface water in North Dakota.....	State Planning Board.
Do.....	1882-1944	Supplement B, 4th biennial report.....	State Water Conservation Commission.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 111, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania.	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1928-32	Stream-flow records of Pennsylvania.....	Department of Forests and Waters.
Rhode Island.	1929-41	7th annual report.....	Department of Public Works.
Tennessee....	1874-1924	Bull. 34, Water resources of Tennessee....	Department of Education.
Do.....	1920-30	Bull. 40, Surface waters of Tennessee[3]....	Do.
Utah.....	1889-1905	5th biennial report.....	Office of the State Engineer.
Do.....	1906-10	7th biennial report.....	Do.
Do.....	1911-16	10th biennial report.....	Do.
Virginia.....	1895-1927	Bull. 31, Water resources of Virginia.....	Virginia Geological Survey.
Do.....	1927-42	Bull. 4, Surface water supply of Virginia (Potomac, Rappahannock, and York River Basins).	Virginia Conservation Commission.
Do.....	1927-42	Bull. 5, Surface water supply of Virginia (James River Basin).	Do.
Do.....	1927-42	Bull. 6, Surface water supply of Virginia (Roanoke and Chowan River Basins).	Do.
Do.....	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River Basins).	Do.
Washington...	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin....	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

2 Contains records of monthly discharge in second-feet per square mile.
3 Contains records of weekly discharge.
4 Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Maine, Missouri, Montana, Nebraska, Nevada, New Mexico, New York (also New York City Board of Water Supply and city of Rochester), North Dakota, Oregon, Pennsylvania, Rhode Island, Washington, and Wyoming.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports:

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
487	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-G	Major Texas floods of 1935.
798	The floods of March 1936, part 1, New England rivers.
799	The floods of March 1936, part 2, Hudson River to Susquehanna River region.
800	The floods of March 1936, part 3, Potomac, James, and upper Ohio Rivers.
816	Major Texas floods of 1936.
836-A	Stages and flood discharges of the Connecticut River at Hartford, Conn.
838	Floods of Ohio and Mississippi Rivers, January-February 1937.
842	Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937.
843	Floods of December 1937 in northern California.
844	Floods of March 1938 in southern California.
847	Maximum discharges at stream-measurement stations through September 1938.
867	Hurricane floods of September 1938.
869	Flood of August 1935 in Muskingum River Basin, Ohio.
914	Texas floods of 1938 and 1939.
967-A	Floods of September 1939 in Colorado River Basin below Boulder Dam.
967-B	Flood of July 5, 1939, in eastern Kentucky.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of discharge were collected during the water year October 1942 to September 1943 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Cayuga Lake Outlet.....	Lock 1 (Mud lock), N. Y.....	1926-44	State Department of Public Works, Albany, N. Y.
Clyde River.....	Clyde, N. Y.....	1924-44	Do.
Indian River.....	Theresa, N. Y.....	1934-44	Central New York Power Corporation, Syracuse, N. Y.
New York Barge Canal†..	Brewerton, N. Y.....	1925-44	State Department of Public Works, Albany, N. Y.
Oneida River.....	Caughdenoy, N. Y.....	1929-44	Oswego River Watershed Corporation, Fulton, N. Y.
Oswegatchie River, East Branch.	Browns Falls, N. Y.....	1934-44	Central New York Power Corporation, Syracuse, N. Y.
Oswego River.....	Lower Dam, Fulton, N. Y.....	1928-44	Oswego River Watershed Corporation, Fulton, N. Y.
Do.....	High Dam, Oswego, N. Y.....	1940-44	Central New York Power Corporation, Syracuse, N. Y.
Raquette River.....	Colton, N. Y.....	1934-44	Do.
St. Regis River, West Branch.	Parishville, N. Y.....	1934-44	Do.
Salmon River.....	Bennetts Bridge, near Altmar, N. Y.	1934-44	Do.
Saranac River.....	Kents Falls, N. Y.....	1934-44	System Properties, Inc., New York, N. Y.
Seneca River.....	Baldwinsville, N. Y.....	1928-44	Oswego River Watershed Corporation, Fulton, N. Y.
Do.....	Jacks Reef, near Baldwinsville, N. Y.	1933-44	State Department of Public Works, Albany, N. Y.

† Diversion around station on Oneida River at Caughdenoy, N. Y.

Note.- Records for the stations given in the above table are unpublished but are available at the office of the organization by which the station was operated. In addition to the records listed in the above table, the Soil Conservation Service of the U. S. Department of Agriculture (beginning in 1940) has collected records of runoff from 3 areas of less than 5 acres each near East Lansing, Mich.

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COOPERATION

The work in the several States was done under cooperative agreements with the organizations listed below.

Illinois: State Department of Public Works and Buildings, W. A. Roserfield, director, through Division of Waterways, T. B. Casey, acting chief engineer.

Indiana: State Department of Conservation, H. A. Barnhart, director, through Division of Engineering, C. H. Bechert, State engineer; State Highway Commission, S. C. Hadden, chairman, and Ray Bowers, chief engineer; State Board of Health, Dr. T. B. Rice, commissioner and J. L. Quinn, Jr., acting director, Division of Environmental Sanitation; and city of Fort Wayne Filtration Plant, L. R. Matthews, superintendent.

Michigan: State Department of Conservation, P. J. Hoffmaster, director, through Geology Division, Dr. R. A. Smith, State geologist, Fish Division, F. A. Westerman, division chief, and Game Division, H. D. Ruhl, division chief; Michigan Stream Control Commission, M. P. Adams, executive secretary-engineer; and State Highway Department, C. M. Ziegler, commissioner.

Minnesota: State Department of Conservation, Division of Water Resources and Engineering, W. S. Olson, director; and Minnesota State Iron Range Resources and Rehabilitation Commission, R. E. Wilson, commissioner.

New York: State Department of Conservation, J. A. White, commissioner; State Department of Public Works, C. H. Sells, superintendent; Board of Black River Regulating District, E. S. Cullings, chief engineer; Commission for the Improvement of Oswegatchie River and the Hydraulic Power Thereon, J. J. Wallace, chairman; Water Department, city of Auburn, A. J. Adams, chief engineer; and Department of Public Works, village of Lancaster, Harold J. Huber, superintendent.

Ohio: State Cooperative Topographic Survey, P. L. Runkle, inspector-director; State Water Supply Board, Wilber Stout, chairman.

Vermont: State Planning Board, Philip Shutler, director.

Wisconsin: Public Service Commission of Wisconsin, C. B. Hayden, acting chief engineer.

Financial assistance was furnished by the Corps of Engineers, United States Army, in the operation of 40 gaging stations, of which 8 were in Michigan, 1 in Indiana, 10 in New York, 14 in Ohio, 1 in Vermont, and 6 in Wisconsin.

Financial assistance was furnished also by the Fish and Wildlife Service, United States Department of the Interior, and by the United States Department of State.

Full cooperation exists between the Geological Survey, United States Department of the Interior, and the Dominion Water and Power Bureau, Department of Mines and Resources, Canada. On waters adjacent to the international boundary certain stations are maintained jointly by the United States and Canada under the terms of the Boundary Waters Treaty of 1909, and others are maintained under a subsequent agreement between the two Governments. The records from all these stations are obtained in such a manner as to be equally acceptable and available in both countries. These stations are designated international gaging stations.

Assistance in collecting records was rendered by the following organizations:

Michigan: Presque Isle County Board of Supervisors, cities of Allegan, Battle Creek, Niles, and Saginaw, Copper District Power Co., Dow Chemical Co., Dow Magnesium Co., Michigan Gas & Electric Co., and Wisconsin Michigan Power Co.

New York: City of Syracuse, N. F. Pitts, Jr., city engineer; Cornell University; Central New York Power Corporation; International Paper Co.; New York & Pennsylvania Co.; New York State Gas & Electric Corporation; Rochester Gas & Electric Corporation; Imperial Paper & Color Corporation; and Deer River Power Co.

Wisconsin: Wisconsin Michigan Power Co. and Lake Superior District Power Co.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey, Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface water. The data for the stations in the several States were collected and prepared for publication under the supervision of district engineers as follows: In Illinois, J. H. Morgan; in Indiana and Michigan, D. M. Corbett; in Minnesota, P. R. Speer; in New York, A. W. Harrington; in Ohio, C. V. Youngquist; in Vermont, H. B. Kinnison; in Wisconsin, F. C. Christopherson.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, hydraulic engineer in charge, and F. J. Flynn, associate engineer, section of reports.

ST. LAWRENCE RIVER MAIN STEM

Niagara River at Buffalo, N. Y.

Location.- Lat. 42°52'40", long. 78°53'25", at head of Niagara River at Buffalo. Flow computed by means of several U. S. Lake Survey gages on river.

Drainage area.- 263,500 square miles.

Records available.- January 1905 to September 1944 (prior to October 1935, monthly discharge only).

Average discharge.- 40 years (October 1904 to September 1944), 191,000 second-feet (not including diversions from Lakes Michigan and Erie).

Extremes.- Maximum daily discharge during year, 242,000 second-feet Oct. 17; minimum daily, 154,000 second-feet Mar. 4.
1905-44: Maximum monthly mean discharge, 242,000 second-feet May 1929; minimum monthly, 117,000 second-feet February 1936.

Remarks.- Records do not include flow diverted from Lake Michigan by Chicago Sanitary & Ship Canal and from Lake Erie by Welland Canal in Ontario, and Black Rock and New York State Barge (old Erie) Canals at Buffalo. Daily discharge of Niagara River computed from gage height at Buffalo and fall from Buffalo to Black Rock. As this reach is occasionally partly blocked by ice, all winter flows have been compared with daily flows computed from Canadian gage at Morrison Street, corrected for diversion through Queenston power plant. The latter figures have been used whenever comparison indicated obstruction by ice in upper river.

Cooperation.- Records of daily discharge furnished by Corps of Engineers, U. S. Army.

Discharge, in thousands of second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	211	209	207	198	188	184	192	212	220	219	207	207
2	209	210	207	194	183	181	192	211	222	216	208	211
3	206	218	204	185	188	185	193	213	210	216	209	203
4	208	214	214	190	187	154	197	214	213	218	212	205
5	211	217	203	193	196	178	198	212	221	219	213	208
6	214	209	204	209	196	181	199	216	229	218	202	211
7	216	202	207	190	192	219	194	216	226	218	199	222
8	214	213	208	182	181	210	195	212	222	218	204	210
9	208	232	218	187	188	193	195	215	213	214	208	201
10	193	218	233	184	175	185	197	216	217	217	210	199
11	208	205	211	189	164	184	186	216	217	218	212	199
12	207	221	233	192	189	184	200	216	219	223	214	198
13	207	230	202	187	184	186	206	221	215	219	209	201
14	218	215	204	192	173	177	199	218	218	216	210	202
15	192	207	205	179	192	177	184	218	222	218	208	205
16	213	207	208	182	183	188	207	216	222	218	212	201
17	242	219	224	187	183	194	201	218	220	212	210	200
18	227	210	213	187	188	189	209	208	216	212	208	200
19	214	214	222	188	182	172	209	208	224	218	205	200
20	208	206	233	191	183	181	205	218	223	221	207	201
21	204	201	222	197	184	189	203	215	223	222	212	205
22	212	202	212	188	163	185	203	219	221	221	210	202
23	208	204	197	190	190	196	204	219	227	216	204	196
24	202	207	190	185	184	192	212	218	230	219	205	197
25	182	207	183	185	172	195	218	218	225	214	206	202
26	185	208	181	186	182	187	214	221	221	212	201	202
27	204	216	205	185	193	197	209	221	220	223	199	202
28	210	203	189	192	185	188	211	221	221	218	211	204
29	225	201	178	196	186	194	212	219	222	217	211	192
30	209	212	191	188	-	206	212	220	221	214	208	194
31	201	-	204	194	-	208	-	220	-	209	205	-

Month	Thousands of second-foot-days	Thousands of second-feet			Per square mile†	Runoff in inches
		Maximum	Minimum	Mean		
October	6,468	242	182	209	0.793	0.91
November	6,337	232	201	211	.801	.89
December	6,412	233	178	207	.786	.90
Calendar year 1943	77,154	243	138	211	.801	10.86
January	5,872	209	179	189	.717	.83
February	5,354	196	164	185	.702	.76
March	5,839	219	154	188	.713	.82
April	6,056	218	184	202	.767	.85
May	6,705	221	208	216	.820	.95
June	6,620	230	210	221	.839	.93
July	6,733	223	209	217	.824	.95
August	6,439	214	199	208	.789	.91
September	6,080	222	192	203	.770	.86
Water year 1943-44	74,915	242	154	205	.778	10.56

† Expressed in second-feet.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

St. Lawrence River at Ogdensburg, N. Y.

Location.- Lat. 44°41'55", long. 75°30'15". Flow computed by means of several U. S. Lake Survey gages on river.

Drainage area.- Above Ogdensburg, 298,100 square miles.

Records available.- January 1919 to September 1944 (prior to October 1935, monthly discharge only).

Average discharge.- 26 years (October 1918 to September 1944), 221,000 second-feet (does not include diversion from Lake Michigan).

Extremes.- Maximum daily discharge during year, 275,000 second-feet Oct. 17; minimum daily, 214,000 second-feet Mar. 4.
1919-44: Maximum monthly mean discharge, 295,000 second-feet June 1943; minimum monthly, 152,000 second-feet February 1936.

Remarks.- Records do not include flow diverted from Lake Michigan by Chicago Sanitary & Ship Canal. Water diverted from Lake Erie and Niagara River by Black Rock and New York State Barge (old Erie) Canals, except that lost by seepage and evaporation, is discharged into Lake Ontario at Oswego and at several points between Niagara River and Irondequoit Bay.

Cooperation.- Records of daily discharge furnished by Corps of Engineers, U. S. Army.

Discharge, in thousands of second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	262	256	252	236	230	222	235	249	260	264	258	248
2	261	260	255	239	225	219	240	251	259	262	258	251
3	259	258	251	238	227	223	242	252	255	262	258	248
4	259	258	257	230	229	214	236	253	257	264	259	245
5	261	257	251	232	232	222	236	250	263	265	260	245
6	267	262	247	242	226	220	242	252	265	263	249	249
7	262	251	250	236	231	227	234	254	266	262	247	263
8	261	258	254	233	220	229	234	257	262	263	251	254
9	256	262	262	235	225	221	236	254	260	261	254	248
10	253	260	259	235	220	225	231	256	257	261	256	245
11	258	253	250	236	221	224	232	255	262	261	257	244
12	259	260	260	236	219	223	231	257	263	266	257	242
13	257	263	249	236	222	227	240	260	259	262	254	242
14	260	261	244	238	223	223	240	259	258	262	255	243
15	254	260	249	234	230	222	237	259	262	262	255	244
16	251	254	249	232	226	224	235	259	263	261	256	244
17	275	258	258	235	226	232	246	260	263	261	254	243
18	263	258	252	231	227	232	246	259	256	257	253	244
19	259	264	252	230	223	227	247	259	261	260	251	243
20	257	257	250	232	219	225	238	259	263	264	254	244
21	258	250	256	233	225	228	237	255	260	262	255	248
22	256	248	248	234	224	228	240	257	263	266	254	244
23	256	250	244	230	225	228	240	258	259	261	252	241
24	251	255	247	232	227	236	242	258	260	263	250	241
25	247	258	248	230	226	234	249	257	261	264	250	243
26	243	257	243	232	221	236	249	260	263	261	248	241
27	244	260	242	234	225	229	246	261	263	262	247	233
28	250	253	242	229	227	236	247	262	264	260	247	235
29	265	251	244	234	225	227	251	259	266	261	251	239
30	261	252	243	233	-	235	254	260	263	263	249	236
31	257	-	244	230	-	240	-	261	-	260	246	-

Month	Thousands of second-foot-days	Thousands of second-feet			Per square mile†	Runoff in inches
		Maximum	Minimum	Mean		
October	7,982	275	243	257	0.862	1.00
November	7,704	264	248	257	.862	.96
December	7,752	262	242	250	.839	.97
Calendar year 1943	94,337	301	180	258	.865	11.79
January	7,247	242	229	234	.785	.90
February	6,526	232	219	225	.756	.81
March	7,038	240	214	227	.761	.88
April	7,213	254	231	240	.805	.90
May	7,962	262	249	257	.862	.99
June	7,835	266	255	261	.876	.98
July	8,126	266	257	262	.879	1.01
August	7,845	260	246	253	.849	.98
September	7,330	263	233	244	.819	.91
Water year 1943-44	90,560	275	214	247	.829	11.29

† Expressed in second-feet.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Pigeon River at Middle Falls, below International Bridge, Minn.

(International gaging station)

Location.- Water-stage recorder, lat. 48°00'44", long. 89°36'58", in NE¼ sec. 24, T. 64 N., R. 6 E., 400 feet upstream from Middle Falls, 3½ miles upstream from mouth, and 5¾ miles downstream from International Bridge. Datum of gage is 789.58 feet above mean sea level, datum of 1929.

Drainage area.- 600 square miles at present site.

Records available.- October 1940 to September 1944. April 1924 to September 1940 at site at International Bridge 5¾ miles upstream, published as Pigeon River at International Bridge, Minn. October 1923 to September 1932 in House Document 92, 73d Congress, 1st Session. June 1921 to September 1923 in reports of Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Average discharge.- 21 years (1923-44), 487 second-feet.

Extremes.- Maximum discharge during year, 4,540 second-feet June 5 (gage height, 7.66 feet); minimum daily discharge, 80 second-feet Mar. 27. Minimum gage height, 0.67 foot Oct. 11, 12.

1923-44: Maximum discharge observed, 11,000 second-feet May 5, 1934 (gage height, 7.6 feet, site and datum then in use), from rating table extended above 7,000 second-feet; minimum, 30 second-feet, Feb. 11 to Mar. 5, 1926.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair.

Cooperation.- This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	349	190	130	110	95	*85	1,620	1,510	1,200	262	1,150
2	108	379	180	130	110	95	85	1,580	1,790	1,060	248	1,150
3	108	376	180	130	110	95	85	2,420	2,180	1,000	240	1,050
4	106	361	170	130	110	95	90	4,210	2,590	975	253	950
5	110	340	170		110	95	100	3,990	4,210	975	279	880
6	108	322	160		110	95	110	2,860	3,990	1,050	285	840
7	106	311	160		100	95	110	2,100	2,860	1,260	267	800
8	104	279	160		100	90	120	1,860	1,900	1,650	251	740
9	101	229	160	120	100	85	140	2,100	1,440	1,290	245	700
10	96	260	150		95	90	140	1,940	1,260	1,020	406	680
11	95	280	140		95	90	*130	1,980	1,350	925	740	680
12	95	280	140		100	95	130	3,150	1,680	860	680	700
13	136	280	130		100	90	130	4,320	2,180	820	568	660
14	229	260	120	*110	100	90	140	4,210	2,860	760	485	620
15	248	240	120	110	100	95	140	3,660	2,680	680	438	585
16	218	240	120	110	95	90	150	3,150	2,590	620	469	550
17	187	260	130	120	95	90	170	2,860	2,500	550	485	534
18	172	260	130	120	95	85	200	2,590	2,260	568	422	517
19	160	260	130	120	*100	85	280	2,340	2,180	620	388	517
20	153	260	130	120	100	85	a600	2,180	2,020	602	391	517
21	162	*240	120	120	100	85	a1,000	2,020	1,790	550	388	517
22	488	220	110	120	100	85	a1,400	1,860	1,620	517	358	501
23	945	220	110	120	100	85	*1,790	1,760	1,480	485	328	469
24	740	200	100	120	100	90	2,420	1,680	1,380	453	379	453
25	550	200	110	120	95	85	2,950	1,580	1,290	438	435	438
26	453	190	120	120	95	85	2,420	1,510	1,200	361	438	438
27	391	180	120	120	95	80	2,180	1,440	1,440	285	438	453
28	391	180	120	120	95	85	1,980	1,350	1,820	285	422	453
29	364	180	120	120	95	85	1,790	1,260	1,650	302	406	438
30	340	180	130	110	-	80	1,290	1,180	1,380	308	760	406
31	325	-	130	110	-	85	-	1,200	-	285	1,020	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,900	945	95	255	0.425	0.49
November	7,816	379	180	261	.435	.48
December	4,260	190	100	137	.228	.26
Calendar year 1943	214,355	3,420	90	587	.978	13.27
January	3,710	130	110	120	.200	.23
February	2,910	110	95	100	.167	.18
March	2,755	95	80	88.9	.148	.17
April	22,355	2,950	85	745	1.24	1.39
May	71,960	4,320	1,180	2,321	3.87	4.46
June	61,080	4,210	1,200	2,036	3.39	3.79
July	22,774	1,650	285	735	1.22	1.41
August	13,177	1,020	240	425	.708	.82
September	19,386	1,150	406	646	1.08	1.20
Water year 1943-44	240,083	4,320	80	656	1.09	14.88

Peak discharge.- Apr. 24 (6 a.m.) 3,150 sec.-ft.; May 4 (5 to 6 p.m.) 4,430 sec.-ft.; May 13 (12 m. to 3 p.m.) 4,430 sec.-ft.; June 5 (2 p.m.) 4,540 sec.-ft.; June 14 (2 p.m.) 2,860 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

Note.- Stage-discharge relation affected by ice Nov. 10 to Apr. 19 (no gage-height record Jan. 5-13; discharge computed on basis of 1 discharge measurement and records for Poplar River at Lutsen).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Poplar River at Lutsen, Minn.

Location.- Water-stage recorder and concrete control, lat. 47°38', long. 90°42', in sec. 33, T. 60 N., R. 3 W., 350 feet upstream from concrete bridge on U. S. Highway 61 at Lutsen and 1,650 feet upstream from mouth. Datum of gage is 697.89 feet above mean sea level.

Drainage area.- 114 square miles.

Records available.- May to November 1911 (gage heights only), August 1912 to September 1917, July 1928 to February 1929, March 1930 to September 1944.

Average discharge.- 17 years (1913-17, 1930-32, 1933-44), 110 second-feet.

Extremes.- Maximum discharge during year, 1,060 second-feet June 5; maximum gage height, 6.14 feet Dec. 16; minimum discharge, 21 second-feet Oct. 11, 12 (gage height, 2.46 feet).

1912-17, 1928-44: Maximum discharge observed, 1,390 second-feet Apr. 25, 1916, from rating curve extended above 1,100 second-feet; minimum discharge, 2.3 second-feet Dec. 3, 1939 (gage height, 1.73 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 5

2.4	18	3.2	121	4.0	440
2.6	30	3.4	199	4.5	660
2.8	48	3.6	279	5.0	910
3.0	77	3.8	359	5.2	1,010

June 6 to Sept. 30

2.6	34	3.6	275
2.8	52	3.8	355
3.0	82	4.0	445
3.2	132	4.5	670
3.4	197	5.0	910

Discharge, in second-feet; water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	220	55				29	239	331	235	89	156
2	30	240	55				29	275	383	216	96	129
3	28	170	50	30			27	469	660	197	94	101
4	28	140	50				26	835	885	197	116	82
5	26	130	50				26	710	985	235	144	71
						24						
6	24	120	48				28	477	885	339	124	61
7	f22	110	48				31	399	692	364	101	54
8	22	100	46				32	351	499	287	94	49
9	22	90	44	28	26		f35	323	386	224	104	50
10	22	90	44				*f41	307	343	194	122	67
11	21	85	42				48	327	295	180	124	124
12	22	85	40				55	403	263	176	99	114
13	217	85	38	*f28			60	565	323	166	82	94
14	367	85	38	28			70	514	454	162	71	78
15	239	80	36	28		26	90	444	396	166	76	67
16	f179	80	36	28			90	395	422	150	96	67
17	140	80	34	28	*f26		*101	351	409	138	80	72
18	120	85	34	28	24		132	323	386	129	67	67
19	110	80	32	28	23	f28	167	295	364	122	60	63
20	85	80	32	28	23	29	195	287	331	114	60	62
21	130	80	32	28	23	28	211	259	275	104	52	58
22	180	*f75	32	28	f23	29	223	243	259	96	48	52
23	130	75	30	28		29	219	231	255	89	45	48
24	120	75	30	28		29	307	223	247	87	42	44
25	110	70	30	28		28	315	219	231	80	39	43
26	95	65	30	28	22	28	255	223	220	78	36	44
27	85	65	30	28		29	239	215	391	76	35	46
28	75	60		26		29	223	199	522	74	33	47
29	70	60	30	26		29	211	203	373	74	33	44
30	65	55		26	-	*29	211	239	279	72	35	44
31	110	-		26	-	29	-	267	-	67	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,928	367	21	94.5	0.829	0.96
November	2,915	240	55	97.2	.853	.95
December	1,186	55	30	38.3	.336	.39
Calendar year 1943	50,410	1,010	20	138	1.21	16.45
January	870	-	26	28.1	.246	.28
February	712	-	-	24.6	.216	.23
March	821	29	-	26.5	.232	.27
April	3,726	315	26	124	1.09	1.22
May	10,810	835	199	349	3.06	3.53
June	12,744	985	220	425	3.73	4.16
July	4,888	364	67	158	1.39	1.59
August	2,408	144	33	77.7	.682	.79
September	2,098	156	43	69.9	.613	.68
Water year 1943-44	46,106	985	21	126	1.11	15.05

Peak discharge.- May 1 (9:30 a.m.) 935 sec.-ft.; June 5 (9 a.m.) 1,060 sec.-ft.; June 28 (2:30 a.m.) 580 sec.-ft.

* Winter discharge measurement made on this day.

f Computed on basis of partly estimated gage-height record.

Note.- Stage-discharge relation affected by ice Nov. 22 to Mar. 19, Mar. 21, 25, 26, Apr. 12-15 (no gage-height record Dec. 28 to Jan. 12, Feb. 1-16, Feb. 23 to Mar. 18; discharge computed on basis of records for Baptism River near Beaver Bay). No gage-height record Oct. 1-3, Oct. 17 to Nov. 21; discharge computed on basis of records for Baptism River near Beaver Bay.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Baptism River near Beaver Bay, Minn.

Location.- Water-stage recorder, lat. 47°20', long. 91°12', in sec. 15, T. 56 N., R. 7 W., 260 feet upstream from highway bridge and 6 miles northeast of village of Beaver Bay. Datum of gage is 609.97 feet above mean sea level.
Drainage area.- 140 square miles.
Records available.- July 1928 to January 1929, March 1930 to September 1944.
Average discharge.- 14 years (1930-44), 158 second-feet.
Extremes.- Maximum discharge during year, 3,130 second-feet May 4 (gage height, 5.35 feet); minimum, 9.3 second-feet Feb. 20 (gage height, 1.98 feet).
1928-29, 1930-44: Maximum discharge, 9,350 second-feet Aug. 9, 1939 (gage height, 8.11 feet), from rating curve extended above 2,600 second-feet; minimum daily, 0.3 second-foot Jan. 5, 6, 1940.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 20				Apr. 21 to Sept. 30			
2.2	20	3.0	121	2.9	101	3.9	738
2.4	36	3.3	234	3.1	157	4.2	1,150
2.6	57	3.6	424	3.3	261	4.5	1,650
2.8	83			3.5	391	4.8	2,160
				3.7	548	5.2	2,860

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	246	65	26	15	13	14	772	371	280	40	111
2	37	264	64	26	15	14	14	828	337	200	33	108
3	34	229	61	26	15	15	14	2,040	406	154	49	87
4	31	199	61	24	15	15	14	2,860	1,140	128	176	69
5	28	184	59	20	14	15	15	1,620	1,410	154	205	57
6	27	169	59	16	13	16	18	962	1,050	391	181	48
7	24	147	59	14	13	15	24	648	678	532	131	40
8	22	130	58	13	13	14	28	532	482	428	106	43
9	22	f120	55	14	12	14	32	451	377	298	94	33
10	20	120	55	13	12	14	*44	414	292	205	87	54
11	19	110	48	13	12	15	*65	593	227	171	73	121
12	22	110	44	13	12	15	100	1,230	195	157	58	151
13	232	110	42	13	13	16	120	1,620	391	128	48	123
14	398	110	40	13	13	15	150	1,150	540	147	37	97
15	333	100	38	13	13	15	190	839	444	216	46	80
16	252	100	38	14	*13	15	240	611	371	a110	72	69
17	199	100	36	16	12	15	320	499	357	a90	65	65
18	173	110	34	16	11	14	*440	428	421	a80	54	59
19	151	100	34	15	10	14	550	391	451	a70	48	54
20	117	*95	30	15	9.3	15	650	384	371	a65	53	50
21	137	90	26	16	10	15	920	337	273	h55	42	49
22	194	90	22	16	10	15	*976	298	211	a48	33	47
23	189	80	22	16	11	15	905	273	191	a44	29	43
24	173	75	24	16	10	16	1,130	244	181	a42	28	40
25	158	75	24	17	10	16	1,300	216	157	h34	24	35
26	134	75	24	18	11	15	962	205	135	a34	21	33
27	117	70	22	17	11	15	920	200	908	a34	19	32
28	103	70	22	17	12	*15	828	186	906	h34	19	32
29	94	70	24	17	12	15	772	176	566	a32	18	31
30	87	65	24	17	-	14	698	195	406	a30	19	30
31	121	-	24	16	-	14	-	304	-	a28	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,690	398	19	119	0.850	0.98
November	3,613	264	65	120	.857	.96
December	1,238	65	22	39.9	.285	.33
Calendar year 1943	69,896	2,160	9.6	191	1.33	18.57
January	516	26	13	16.6	.119	.14
February	352.3	15	9.3	12.1	.086	.09
March	459	16	13	14.8	.106	.12
April	12,353	1,300	14	412	2.94	3.28
May	21,506	2,860	176	694	4.93	5.71
June	14,245	1,410	135	475	3.39	3.78
July	4,419	532	28	143	1.02	1.17
August	1,967	205	18	63.5	.454	.52
September	1,891	151	30	63.0	.450	.50
Water year 1943-44	69,420	2,860	9.3	190	1.33	17.58

Peak discharge.- May 4 (4:30 a.m.) 3,130 sec.-ft.; May 12 (8 p.m.) 2,150 sec.-ft.; June 5 (6 a.m.) 1,670 sec.-ft.; June 27 (9 a.m.) 1,430 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of record for Poplar River at Lutsen.
h Computed from tape-gage readings.
Note.- Stage-discharge relation affected by ice Nov. 8-30, Dec. 9 to Feb. 15, Mar. 7 to Apr. 20 (no gage-height record Dec. 15, 16, 18-21, 23, 25-27, 31, Jan. 5, 7, 10, Mar. 27).
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

St. Louis River near Aurora, Minn.

Location.- Water-stage recorder, lat. 47°29'30", long. 92°14'20" in SW¼ sec. 22, T. 58 N., R. 15 W. at highway bridge, three-quarters of a mile downstream from Partridge River and 1½ miles south of Aurora. Prior to Aug. 26, 1944, chain gage at same site and datum.

Drainage area.- 312 square miles.

Records available.- August 1942 to September 1944.

Extremes.- Maximum discharge during year, 3,960 second-feet June 6 (gage height, 7.30 feet); minimum daily discharge, 7.5 second-feet Feb. 29, Mar. 1; minimum gage height observed, 0.82 foot Mar. 2, 3, affected by ice.
1942-44: Maximum discharge observed, that of June 6, 1944; minimum daily discharge, that of Feb. 29, Mar. 1, 1944; minimum gage height observed, that of Mar. 2, 3, 1944.

Remarks.- Records good except those for period of ice effect, which are fair. Gage read twice daily Oct. 1 to Aug. 25; recorder record thereafter.

Rating tables, water year 1943-44, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 18		Apr. 19 to Sept. 30					
1.4	85	1.5	100	2.6	428	4.5	1,550
1.6	117	1.7	137	3.0	605	5.0	1,950
1.8	160	2.0	218	3.5	857	6.0	2,760
2.0	213	2.3	316	4.0	1,160	7.2	3,860

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	151	130	65	55	7.5	19	676	700	1,040	279	221
2	148	172	130	65	50	8.0	20	700	802	915	262	243
3	139	160	130	65	48	9.0	19	857	1,550	750	262	249
4	133	172	120	60	44	9.5	19	945	2,110	700	309	275
5	125	172	120	60	42	10	19	1,200	3,660	830	306	275
6	115	172	120	55	38	11	20	1,350	3,860	945	302	259
7	114	185	120	50	36	12	20	1,310	3,300	1,040	289	240
8	103	180	120	44	32	14	24	1,200	2,670	1,130	289	218
9	98	180	120	*44	30	15	*26	1,100	2,110	1,100	323	224
10	102	170	120	44	28	14	30	975	1,710	1,040	320	237
11	100	160	110	44	26	12	36	975	1,390	915	306	256
12	100	160	100	42	24	12	48	1,130	1,130	830	282	262
13	125	150	90	42	22	13	85	1,550	1,040	725	262	262
14	139	150	90	44	20	14	130	1,670	1,470	652	246	252
15	160	140	85	44	18	14	170	1,590	1,670	605	256	243
16	172	140	85	44	16	14	240	1,510	1,670	582	246	230
17	185	140	85	44	15	16	340	1,310	1,510	559	240	224
18	172	140	85	44	14	14	440	1,160	1,510	532	218	212
19	185	150	80	44	12	13	*559	1,060	1,430	483	199	202
20	172	150	80	46	11	12	605	945	1,270	445	215	206
21	185	160	85	44	10	13	605	857	1,130	405	196	209
22	185	150	85	44	*11	14	652	776	975	374	158	206
23	185	150	80	44	11	14	676	750	857	334	146	199
24	172	*150	75	46	9.0	17	700	676	750	320	123	190
25	160	150	70	48	8.0	19	750	628	676	316	117	184
26	160	140	70	55	8.0	19	776	628	652	289	114	176
27	160	140	65	60	8.0	*18	750	605	975	279	107	171
28	146	140	65	65	8.0	18	725	582	1,230	285	102	165
29	142	140	65	65	7.5	18	676	582	1,270	302	108	155
30	133	140	65	60	-	18	652	605	1,160	296	123	153
31	146	-	65	55	-	18	-	628	-	289	196	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,519	185	98	146	0.468	0.54
November	4,654	185	140	155	.497	.55
December	2,910	130	65	93.9	.301	.35
Calendar year 1943	95,987	1,090	24	263	.843	11.45
January	1,576	65	42	50.8	.163	.19
February	661.5	55	7.5	22.8	.073	.08
March	430	19	7.5	13.9	.045	.05
April	9,831	776	19	328	1.05	1.17
May	30,530	1,670	582	985	3.16	3.64
June	46,237	3,860	652	1,541	4.94	5.51
July	19,307	1,130	279	623	2.00	2.30
August	6,901	323	102	223	.715	.82
September	6,598	275	153	220	.705	.79
Water year 1943-44	134,154.5	3,860	7.5	367	1.18	15.99

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 8 to Apr. 18.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Partridge River near Aurora, Minn.

Location.- Water-stage recorder, lat. 47°31'00", long. 92°11'20", on line between secs. 12 and 13, T. 58 N., R. 15 W., at highway bridge, 1 mile downstream from unnamed tributary, 1½ miles east of Aurora, and 2½ miles upstream from St. Louis River. Prior to Aug. 26, 1944, staff gage at same site and datum.
Drainage area.- 156 square miles.
Records available.- August 1942 to September 1944.
Extremes.- Maximum discharge observed during year, 2,930 second-feet June 6 (gage height, 7.51 feet); minimum daily discharge, 6.5 second-feet Feb. 26 to Apr. 5; minimum gage height, 0.82 foot Mar. 2-4.
1942-44: Maximum discharge observed, that of June 6, 1944; minimum daily discharge, that of Feb. 26 to Apr. 5, 1944.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Staff gage read twice daily Oct. 1 to Aug. 25; recorder record thereafter.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 13		Apr. 14 to Sept. 30					
1.7	39	2.0	65	3.0	173	4.5	770
1.8	47	2.2	83	3.2	210	5.0	1,095
1.9	56	2.4	101	3.5	290	6.0	1,770
2.0	65	2.6	122	3.7	360	7.5	2,925
2.2	83	2.8	145	4.0	480		
2.4	101						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	78			11	6.5	6.5	378	260	615	133	94
2	74	78			11	6.5	6.5	378	325	505	128	105
3	70	83	45	20	11	6.5	6.5	458	675	378	122	118
4	64	88			10	6.5	6.5	615	1,360	a386	133	139
5	60	85			10	6.5	6.5	770	2,430	395	145	138
6	57	85			10	6.5	7.0	835	2,920	530	145	131
7	53	85		18	9.5	6.5	8.5	900	2,510	645	139	121
8	51	85	40		9.5	6.5	10	835	1,980	738	145	109
9	49	80		16	9.0	6.5	*18	675	1,560	738	158	112
10	46	80		*15	9.0	6.5	32	585	1,160	705	152	112
11	42	80		14	9.0	6.5	40	530	802	615	145	112
12	42	80		12	9.0	6.5	*60	615	530	505	139	115
13	54	80	35	12	8.5	6.5	90	802	585	415	139	119
14	65	75		12	8.5	6.5	133	900	645	378	122	119
15	78	70		12	8.0	6.5	158	965	705	342	122	113
16	83	70		12	8.0	6.5	*235	900	835	325	122	108
17	92	70		12	8.0	6.5	275	835	835	290	111	104
18	96	65	30	12	8.0	6.5	325	675	900	275	111	99
19	96	70		11	7.5	6.5	360	615	770	248	101	96
20	101	65		11	7.5	6.5	395	505	705	210	92	92
21	101	60		11	7.5	6.5	435	435	615	182	88	90
22	96	60		11	*7.0	6.5	480	395	530	166	78	90
23	96	55	25	11	7.0	6.5	505	360	435	152	74	89
24	92	*55		11	7.0	6.5	530	325	378	145	63	88
25	92	55		11	7.0	6.5	530	275	308	133	59	85
26	92	50		11	6.5	6.5	530	260	275	133	52	81
27	88	50		11	6.5	*6.5	505	248	415	133	47	78
28	83	50	22	11	6.5	6.5	458	a240	505	128	43	73
29	78	48		11	6.5	6.5	435	235	558	139	44	69
30	74	48		11	-	6.5	395	248	615	139	55	68
31	78	-		11	-	6.5	-	260	-	139	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,317	101	42	74.7	0.479	0.55
November	2,083	88	48	69.4	.445	.50
December	1,007	-	-	32.5	.208	.24
Calendar year 1943	50,959.2	680	8.4	140	.897	12.14
January	426	-	11	13.7	.088	.10
February	243.5	11	6.5	8.40	.054	.06
March	201.5	6.5	6.5	6.50	.042	.05
April	6,982	530	6.5	233	1.49	1.66
May	17,052	965	235	550	3.53	4.07
June	27,126	2,920	260	904	5.79	6.47
July	10,827	738	128	349	2.24	2.58
August	3,298	158	43	106	.679	.79
September	3,067	139	68	102	.654	.73
Water year 1943-44	74,630	2,920	6.5	204	1.31	17.80

* Winter discharge measurement made on this day.
a No gage-height record; discharge estimated.
Note.- Stage-discharge relation affected by ice Nov. 5 to Apr. 13 (no gage-height record Nov. 9, Nov. 30 to Jan. 8; discharge computed on basis of records for Poplar River at Lutsen, Baptism River near Beaver Bay, and St. Louis River near Aurora).
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Embarrass River at Embarrass, Minn.

Location.- Water-stage recorder, lat. 47°39'30", long. 92°11'50", in NW¼ sec. 25, T. 60 N., R. 15 W., at Embarrass, 30 feet upstream from highway bridge and 100 feet upstream from railway bridge. Prior to Aug. 28, 1944, chain gage at highway bridge, same datum.
Drainage area.- 93.8 square miles.
Records available.- August 1942 to September 1944.
Extremes.- Maximum discharge observed during year, 1,160 second-feet June 6 (gage height, 9.69 feet); minimum daily discharge, 2.0 second-feet Feb. 12, 16-18, Mar. 19; minimum gage height observed, 0.68 foot Feb. 19, 20, Mar. 25.
1942-44: Maximum discharge observed, that of June 6, 1944; minimum daily discharge, that of Feb. 12, 16-18, Mar. 19, 1944; minimum gage height observed, 0.68 foot several days in winters of 1943 and 1944.
Remarks.- Records excellent except those for periods of ice effect, which are fair. Gage read once or twice daily Oct. 1 to Aug. 27; recorder record thereafter.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	29	22	13	4.6	2.6	4.0	165	136	308	87	78
2	25	32	22	11	4.6	2.8	3.8	181	165	254	80	70
3	24	36	21	10	5.0	2.8	3.8	215	233	215	76	60
4	24	34	22	10	4.8	2.6	4.0	276	361	194	80	55
5	22	34	22	9.0	4.4	2.8	4.2	325	786	254	84	52
6	21	33	21	7.0	3.6	2.8	4.6	380	1,090	308	76	49
7	20	31	21	5.0	3.2	2.8	9.5	370	906	352	68	44
8	20	25	21	4.6	3.0	2.6	12	334	711	400	68	39
9	20	28	21	4.6	3.2	2.2	*15	292	555	400	91	40
10	18	35	20	*4.4	2.8	2.4	18	254	442	370	98	46
11	18	37	21	4.4	2.4	2.6	34	247	361	343	95	53
12	18	34	20	3.8	2.0	3.0	*65	325	292	325	80	52
13	25	34	19	3.8	2.2	2.8	95	442	254	300	68	47
14	44	32	17	4.0	2.4	2.8	120	540	431	292	65	43
15	44	30	16	4.0	2.2	2.8	140	526	555	316	65	41
16	44	29	16	4.0	2.0	2.8	*170	464	735	308	80	41
17	43	29	16	4.2	2.0	2.6	170	400	688	292	68	42
18	40	26	16	4.2	2.0	2.4	160	343	571	268	57	40
19	36	28	17	4.4	2.2	2.0	*158	300	476	240	54	45
20	34	28	17	4.4	2.2	2.2	158	268	420	209	50	43
21	38	26	15	4.6	2.4	2.4	165	240	361	181	45	40
22	39	26	14	5.0	*2.6	2.8	165	221	308	158	40	38
23	37	*25	12	4.8	2.6	3.2	165	204	268	136	37	35
24	36	24	12	5.0	2.4	3.6	176	186	227	128	34	33
25	33	24	13	5.0	2.6	3.8	190	171	199	114	32	31
26	32	24	13	5.5	2.8	3.6	186	171	176	128	29	30
27	30	24	14	6.5	2.6	3.6	180	158	247	128	26	29
28	29	23	13	5.5	2.6	*4.2	176	136	325	106	23	28
29	28	23	14	5.0	2.4	4.2	171	128	361	136	22	26
30	26	25	12	5.0	-	4.2	165	114	343	114	31	25
31	28	-	12	4.8	-	4.2	-	114	-	98	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	922	44	18	29.7	0.317	0.37
November	868	37	23	28.9	.308	.34
December	532	22	12	17.2	.183	.21
Calendar year 1943	25,636.5	405	3.6	70.2	.748	10.16
January	176.5	13	3.8	5.69	.061	.07
February	83.8	5.0	2.0	2.89	.031	.03
March	92.2	4.2	2.0	2.97	.032	.04
April	3,087.9	190	3.8	103	1.10	1.22
May	8,490	540	114	274	2.92	3.37
June	12,983	1,090	136	433	4.62	5.15
July	7,375	400	98	238	2.54	2.92
August	1,883	98	22	60.7	.647	.75
September	1,295	78	25	43.2	.460	.51
Water year 1943-44	37,788.4	1,090	2.0	103	1.10	14.98

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 22, Dec. 13-18, 21-27, Jan. 5 to Apr. 18.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Amnicon Lake near South Range, Wis.

Location.- Staff gage, lat. 46°29 , long. 92°04', in sec. 12, T. 46 N., R. 14 W., in northwest corner of lake, 15 miles southwest of South Range. Datum of gage is 1,188.00 feet above mean sea level (State Highway Commission levels). Gage readings have been reduced to elevation above mean sea level.
Drainage area.- 5 square miles.
Records available.- August 1936 to September 1944 (fragmentary).
Extremes.- Maximum elevation observed during year, 1,199.23 feet June 5; minimum, 1,196.60 feet Oct. 9.
1937-44: Maximum elevation observed, 1,199.23 feet June 5, 1944; minimum, 1,196.04 feet Aug. 24, Oct. 3, 1936.
Remarks.- Lake has natural outlet.

Elevation, in feet, of Amnicon Lake near South Range, Wis., water year October 1943 to September 1944

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 9	6.60	Apr. 22	7.20	June 2	8.04	July 22	7.48
16	6.66	25	7.54	5	9.23	27	7.36
23	6.64	27	7.60	8	9.06	29	7.38
30	6.66	29	7.64	10	8.69	Aug. 5	7.40
Nov. 6	6.64	May 2	7.74	12	8.44	12	7.39
11	6.94	3	7.84	15	8.36	19	7.36
13	6.90	4	7.94	16	8.26	26	7.24
15	6.90	6	8.06	17	8.14	Sept. 2	7.44
20	6.90	10	7.94	22	8.12	9	7.33
27	6.90	13	8.00	24	8.08	16	7.34
Dec. 4	6.90	18	7.92	28	8.24	23	7.26
Apr 8	7.34	20	8.04	July 1	8.08	27	7.54
12	7.40	24	7.94	8	7.88	29	7.60
14	7.20	27	7.82	10	7.80	30	7.58
15	7.14	31	7.74	15	7.70		

Note.- Add 1,190 feet to obtain elevation above mean sea level.

Montreal River near Saxon, Wis.

Location.- Water-stage recorder, lat. 46°32', long. 90°23', in NW¼ sec. 23, T. 48 N., R. 49 W., 2 miles upstream from mouth and 3½ miles north of Saxon.
Drainage area.- 281 square miles.
Records available.- September 1938 to September 1944.
Extremes (regulated).- Maximum discharge during year, 3,750 second-feet June 5 (gage height, 5.60 feet); minimum, 28 second-feet Nov. 1 (gage height, 1.53 feet).
1938-44: Maximum discharge, 5,700 second-feet July 18, 1942 (gage height, 6.93 feet); minimum, 2 second-feet Sept. 21, Oct. 8, 1939.
Remarks.- Records good except those for periods of ice effect, which are fair. Diurnal fluctuation caused by Saxon Falls power plant 1½ miles upstream. Flow regulated by Gile Reservoir on West Branch Montreal River (capacity, 1.29 billion cubic feet).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1	184	95	90	80	190	125	140	560	226	243	142	139
2	180	102	88	80	210	120	120	549	269	203	207	110
3	176	115	99	80	190	120	120	656	260	180	156	159
4	184	121	85	70	165	120	120	904	400	159	370	159
5	180	170	94	78	140	120	140	920	2,780	152	365	162
6	180	214	102	66	92	120	160	896	3,310	156	226	159
7	176	256	98	68	105	94	210	778	2,500	152	180	159
8	176	355	105	82	115	60	270	610	1,320	159	162	159
9	173	380	100	*79	105	90	450	610	808	152	173	159
10	170	355	65	72	*86	120	650	598	572	124	152	176
11	173	297	62	66	74	130	800	623	467	162	110	184
12	176	265	56	60	86	96	896	839	415	199	159	180
13	184	235	40	72	92	115	1,190	1,440	326	159	133	173
14	180	210	60	80	105	120	1,510	1,390	380	136	162	170
15	176	210	100	66	98	120	1,400	936	235	118	162	166
16	180	170	94	64	110	120	1,280	663	184	136	166	162
17	180	170	88	78	110	120	1,310	543	162	145	152	162
18	173	170	100	80	100	110	1,570	410	173	162	152	166
19	173	148	82	60	110	100	1,840	436	210	148	145	207
20	173	148	98	74	112	120	2,060	643	222	124	152	170
21	214	133	76	74	115	120	1,840	520	195	148	156	152
22	297	*133	72	76	96	120	1,570	591	283	139	162	159
23	340	130	74	74	98	120	1,450	591	243	139	170	156
24	274	110	92	80	100	140	2,060	446	306	152	166	156
25	203	110	84	140	105	140	2,140	306	390	156	159	166
26	180	115	86	240	125	150	1,570	256	467	156	166	152
27	173	90	84	260	105	155	1,110	231	820	148	166	365
28	162	60	80	270	120	170	871	207	1,070	159	162	461
29	127	80	84	260	135	140	719	184	977	365	159	395
30	121	100	80	280	-	125	623	173	417	256	159	297
31	58	-	76	230	-	130	-	173	-	184	173	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,696	340	58	184	0.655	0.76
November	5,247	380	60	175	.623	.70
December	2,594	105	40	83.7	.298	.34
Calendar year 1943	118,407	2,360	40	324	1.15	15.68
January	3,439	280	60	111	.395	.46
February	3,394	210	74	117	.416	.45
March	3,750	170	60	121	.431	.50
April	30,209	2,140	120	1,007	3.58	3.99
May	18,682	1,440	173	603	2.15	2.48
June	20,387	3,310	162	680	2.42	2.70
July	5,161	365	118	166	.591	.68
August	5,324	370	107	172	.612	.71
September	5,740	461	110	191	.680	.76
Water year 1943-44	109,623	3,310	40	300	1.07	14.53

Peak discharge.- Apr. 25 (1 a.m.) 2,360 sec.-ft.; May 13 (6 p.m.) 1,640 sec.-ft.; June 5 (9:30 a.m.) 3,750 sec.-ft.; June 27 (8:30 p.m.) 1,230 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 12-18, Nov. 23 to Dec. 2, Dec. 7 to Apr. 11.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Branch Montreal River at Gile, Wis.

Location.- Staff gage, lat. 46°25'35", long. 90°13'35", in sec. 34, T. 46 N., R. 2 E., immediately below outlet structure of Gile Reservoir at Gile and 4 miles upstream from mouth.
Drainage area.- 78 square miles.
Records available.- October 1942 to September 1944. April 1918 to November 1925, at site 1,600 feet downstream.
Extremes (regulated).- Maximum discharge during year, 1,220 second-feet June 6, 7; minimum daily, 8.0 second-feet Nov. 17-30, reservoir gates closed.
1918-25, 1942-44: Maximum discharge observed, 1,480 second-feet Apr. 21, 1923 (gage height, 7.20 feet, site and datum then in use); minimum, about 1.6 second-feet Aug. 14-19, 1925 (gage height, 1.15 feet, site and datum then in use).
Remarks.- Records good except those for period of ice effect, which are fair. Discharge for days when flow was above 130 second-feet was computed from reservoir records and gate ratings. Flow regulated by Gile Reservoir. Gage read once daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1	178	27	8.9	35	12	39	37	15	53	32	17	69
2	171	28	8.9	35	12	39	37	15	53	32	63	113
3	171	27	8.9	35	12	37	37	15	138	46	89	127
4	171	27	8.9	35	12	37	37	89	120	54	46	127
5	171	27	15	35	12	37	37	208	194	60	20	127
6	171	11	15	35	11	37	32	326	917	69	19	127
7	171	14	16	35	10	37	15	299	1,200	79	19	127
8	171	14	16	*35	10	37	15	151	735	79	20	127
9	164	14	16	35	10	37	15	249	279	87	20	127
10	164	13	16	35	*10	37	15	111	230	93	39	127
11	164	12	16	35	10	37	15	327	243	93	70	127
12	164	12	19	35	19	37	15	459	192	76	89	127
13	154	11	33	35	37	37	15	637	144	60	102	127
14	142	11	37	35	37	37	15	559	175	58	115	127
15	142	9.e	37	35	46	37	15	268	35	70	115	127
16	142	9.0	37	35	46	*37	15	249	35	94	115	127
17	142	8.0	37	35	46	37	15	164	35	103	115	127
18	127	8.0	37	33	46	37	15	73	35	103	115	123
19	123	8.0	37	33	46	37	15	230	33	100	115	91
20	123	8.0	37	33	46	37	15	227	33	103	119	27
21	109	8.0	37	33	46	37	16	166	82	107	148	60
22	30	*8.0	37	33	41	37	16	279	99	107	156	79
23	11	8.0	37	33	41	37	16	257	74	115	156	79
24	11	8.0	37	33	41	37	17	83	120	119	156	93
25	11	8.0	37	33	41	37	17	44	135	119	156	103
26	11	8.0	37	27	41	37	17	44	196	119	152	97
27	11	8.0	37	15	41	37	17	44	586	119	152	19
28	11	8.0	37	15	39	37	17	41	663	113	152	16
29	9.8	8.0	37	15	39	37	17	41	499	16	152	16
30	9.8	8.0	35	13	-	37	16	41	40	16	125	16
31	9.8	-	35	12	-	37	-	41	-	15	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,360.4	178	9.8	108	1.38	1.59
November	378.8	28	8.0	12.6	.162	.18
December	859.6	37	8.9	27.7	.355	.41
Calendar year 1943	44,546.8	468	8.0	122	1.56	21.25
January	956	35	12	30.8	.395	.46
February	860	46	10	29.7	.381	.41
March	1,151	39	37	37.1	.476	.55
April	593	37	15	19.8	.254	.28
May	5,752	637	15	186	2.38	2.74
June	7,373	1,200	33	246	3.15	3.51
July	2,458	119	15	79.3	1.02	1.18
August	3,030	156	17	97.7	1.25	1.44
September	2,926	127	16	97.5	1.25	1.40
Water year 1943-44	29,697.8	1,200	8.0	81.1	1.04	14.15

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 16-30, Jan. 30 to Feb. 11.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Big Lake near Land O'Lakes, Wis.

Location.- Staff gage, lat. 46°11'30", long. 89°27'15", in lot 4, sec. 23, T. 43 N., R. 8 E., 15 miles west of village of Land O'Lakes.
Drainage area.- 32 square miles.
Records available.- June 1938 to September 1944 (fragmentary).
Extremes.- Maximum gage height observed during year, 6.20 feet June 6; minimum, 5.62 feet Aug. 27-29.
1938-44: Maximum gage height observed, 6.54 feet June 17, 18, 20, 1943; minimum, 4.40 feet Apr. 13, 1940, Apr. 8, 1941.

Gage height, in feet, of Big Lake near Land O'Lakes, Wis., water year October 1943 to September 1944

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-	5.82	5.76	5.72	5.68	16	6.00	5.84	5.74	5.68	5.72
2	-	5.82	5.76	5.80	5.68	17	5.96	5.86	5.72	5.68	5.72
3	-	5.86	5.76	5.80	5.68	18	5.90	5.88	5.72	5.68	5.72
4	-	5.86	5.74	5.82	5.66	19	5.90	5.86	5.72	5.68	5.80
5	-	6.14	5.72	5.86	5.66	20	5.90	5.84	5.72	5.66	5.86
6	-	6.20	5.74	5.84	5.66	21	5.88	5.84	5.72	5.66	5.84
7	-	6.15	5.74	5.82	5.66	22	5.86	5.90	5.70	5.64	5.80
8	-	6.10	5.74	5.80	5.66	23	5.84	5.90	5.70	5.64	5.76
9	-	6.06	5.74	5.76	5.66	24	5.84	5.90	5.70	5.64	5.74
10	5.80	6.00	5.74	5.72	5.66	25	5.82	5.88	5.70	5.64	5.72
11	-	5.96	5.80	5.68	5.70	26	5.80	5.88	5.68	5.64	5.70
12	-	5.92	5.82	5.68	5.74	27	5.80	5.88	5.68	5.62	5.84
13	-	5.90	5.78	5.68	5.74	28	5.80	5.84	5.68	5.62	5.86
14	6.06	5.88	5.74	5.68	5.72	29	5.80	5.80	5.72	5.62	5.86
15	6.02	5.84	5.74	5.68	5.72	30	5.80	5.78	5.74	5.64	5.84
						31	5.80	-	5.72	5.66	-

Middle Branch Ontonagon River near Paulding, Mich.

Location.- Water-stage recorder, lat. 46°21'30", long. 89°04'40", in sec. 29, T. 46 N., R. 38 W., 25 feet downstream from highway bridge, 2¼ miles upstream from Bond Falls Reservoir, and 5¾ miles southeast of Paulding.
Drainage area.- About 175 square miles.
Records available.- June 1942 to September 1944.
Extremes.- Maximum discharge during year, 1,320 second-feet June 6 (gage height, 9.15 feet); minimum, about 78 second-feet Dec. 10, caused by ice jams upstream.
1942-44: Maximum discharge that of June 6, 1944; minimum, 30 second-feet Nov. 26, 1943 (gage height, 2.96 feet).
Remarks.- Records excellent except those for periods of ice effect or shifting control, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	*127	125	105	125	105	130	293	196	217	104	114
2	119	127	*120	115	145	120	130	337	178	197	102	106
3	115	128	120	115	140	140	130	370	359	180	101	99
4	112	128	120	115	130	135	130	469	425	166	104	95
5	110	134	120	*110	125	130	130	491	994	154	105	95
6	107	140	120	110	125	130	130	447	1,270	146	100	96
7	106	148	120	110	120	105	*131	370	1,100	138	95	95
8	106	243	120	110	120	115	142	326	896	130	94	92
9	106	282	115	110	120	120	164	348	708	123	94	91
10	103	237	115	105	115	125	183	359	570	120	91	101
11	103	212	115	105	115	125	183	337	469	123	91	139
12	103	192	115	105	110	125	183	392	414	154	88	127
13	110	176	115	105	105	125	203	593	370	152	86	114
14	127	160	115	115	110	125	214	685	348	136	84	107
15	123	155	115	115	110	125	198	616	315	126	84	105
16	116	155	110	120	100	125	185	502	274	122	87	102
17	115	150	110	120	105	125	192	414	245	114	86	100
18	114	150	110	120	100	125	209	348	293	111	84	100
19	111	145	110	125	100	125	230	315	315	111	84	104
20	111	144	110	110	105	130	249	315	278	112	84	146
21	112	139	110	135	105	135	253	293	245	109	84	149
22	148	136	110	135	105	140	255	280	225	105	84	129
23	181	134	105	135	105	145	272	267	238	107	83	116
24	162	137	105	145	95	150	425	243	381	105	83	110
25	144	140	105	140	105	150	502	232	348	98	83	106
26	136	135	105	150	115	145	480	222	348	96	83	107
27	130	131	100	165	125	145	425	201	381	100	82	197
28	126	130	100	155	120	140	359	181	359	105	84	253
29	123	130	100	145	*110	135	315	169	304	136	85	223
30	121	125	105	120	-	135	282	162	251	133	84	177
31	123	-	105	*140	-	130	-	174	-	114	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,740	181	103	121	0.691	0.79
November	4,670	282	125	156	.891	.99
December	3,470	125	100	112	.640	.74
Calendar year 1943	74,596	995	100	204	1.17	15.85
January	3,810	165	105	123	.703	.81
February	3,310	145	95	114	.651	.70
March	4,030	150	105	130	.743	.86
April	7,014	502	130	234	1.34	1.49
May	10,751	685	162	347	1.98	2.28
June	13,147	1,270	178	438	2.50	2.79
July	4,040	217	96	130	.743	.86
August	2,789	106	82	90.0	.514	.59
September	3,695	253	91	123	.703	.79
Water year 1943-44	64,466	1,270	82	176	1.01	13.69

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 15-19, 25, 26, Nov. 28 to Apr. 6. Shifting-control method used June 15-23, June 29 to July 7.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Middle Branch Ontonagon River near Trout Creek, Mich.

Location.- Water-stage recorder, lat. 46°28'45", long. 89°05'25", in sec. 8, T. 47 N., R. 38 W., an eighth of a mile upstream from State Highway 28, 3¾ miles west of town of Trout Creek, and 6½ miles downstream from Bond Falls Dam.

Drainage area.- About 225 square miles.

Records available.- June 1942 to September 1944.

Extremes (regulated).- Maximum discharge during year, 1,170 second-feet June 7 (gage height, 4.53 feet); minimum 33 second-feet Nov. 28; minimum gage height, 1.50 feet Mar. 28, Apr. 3.

1942-44: Maximum discharge, that of June 7, 1944; minimum, that of Nov. 28, 1943; minimum gage height, that of Mar. 28, Apr. 3, 1944.

Remarks.- Records excellent except those for periods of ice effect, which are good. Records not adjusted for regulation by Bond Falls Reservoir or diversion to South Branch Ontonagon River by Bond Falls Canal (see p. 28).

Rating table; water year 1943-44, except periods of ice effect (gage-height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 12)

1.5	34	2.2	156
1.6	44	2.6	280
1.7	56	3.0	430
1.8	70	3.8	785
2.0	106	4.5	1,140

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	44	44	44	44	*40	44	45	54	50	89	42	44
2	44	43	*44	44	41	44	44	54	50	89	42	44
3	44	44	44	44	43	44	44	62	183	111	42	43
4	43	44	44	44	44	44	45	66	360	95	46	43
5	43	45	44	44	43	44	45	56	697	83	44	44
6	43	45	44	*39	42	*44	*46	54	922	62	44	44
7	43	48	43	38	41	44	46	52	1,140	59	43	43
8	43	57	44	38	40	44	49	52	1,020	57	42	43
9	43	50	42	38	40	44	60	66	785	56	42	44
10	43	48	43	38	40	45	57	177	542	55	42	45
11	43	46	43	38	40	46	60	433	458	55	42	45
12	43	46	43	39	40	46	63	270	402	56	42	44
13	44	45	43	40	40	46	66	402	332	54	42	44
14	43	43	43	40	40	46	64	546	235	54	42	44
15	43	45	43	40	40	46	60	645	186	52	43	43
16	43	44	43	38	41	46	59	690	186	52	43	43
17	43	45	43	39	42	46	60	652	174	50	42	43
18	43	44	43	42	43	46	63	470	192	43	42	43
19	42	45	44	45	44	46	64	474	238	43	42	48
20	42	44	45	48	45	45	63	391	171	43	43	50
21	44	44	46	48	45	44	59	304	140	43	42	46
22	46	44	45	46	45	44	57	239	129	42	42	45
23	45	42	43	46	45	44	59	121	145	42	42	45
24	44	42	43	46	45	45	82	51	107	42	42	44
25	44	43	44	46	45	45	69	50	177	41	42	44
26	44	44	45	52	44	45	59	50	198	42	42	48
27	44	44	45	52	44	45	56	51	264	42	42	54
28	44	42	45	52	44	45	52	55	207	46	43	50
29	44	42	44	49	44	45	51	97	120	45	43	48
30	44	45	44	47	-	45	51	157	80	43	43	45
31	44	-	44	41	-	45	-	54	-	43	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,349	46	42	43.5		
November	1,347	57	42	44.9		
December	1,357	46	42	43.8		
Calendar year 1943	55,196	1,010	42	151		
January	1,345	52	38	43.4		
February	1,230	45	40	42.4		
March	1,392	46	44	44.9		
April	1,698	82	44	56.6		
May	6,895	690	50	222		
June	9,890	1,140	50	330		
July	1,729	111	41	55.8		
August	1,321	46	42	42.6		
September	1,353	54	43	45.1		
Water year 1943-44	30,906	1,140	38	84.4		

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 13-19, 22-29, Jan. 6-19, Jan. 29 to Feb. 19, Feb. 26, Mar. 1, 7-11, 19-21.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Middle Branch Ontonagon River near Rockland, Mich.

Location.- Wire-weight gage, lat. 46°42'05", long. 89°09'40", in sec. 27, T. 50 N., R. 39 W., at bridge on U. S. Highway 45, 300 feet downstream from East Branch and 2½ miles southeast of Rockland.

Drainage area.- 670 square miles.

Records available.- July 1942 to September 1944.

Extremes (regulated).- Maximum discharge during year, 6,780 second-feet June 5 (gage height, 10.88 feet, from graph based on gage readings); minimum observed, 183 second-feet Aug. 18 (gage height, 4.60 feet).

1942-44: Maximum discharge, 27,000 second-feet Aug. 22, 1942 (gage height, 21.2 feet, from floodmarks), from rating curve extended above 4,500 second-feet on basis of slope-area and contracted-opening determinations at gage height 21.2 feet; minimum observed, that of Aug. 18, 1944; minimum gage height observed, 4.39 feet Aug. 13, 1942.

Remarks.- Records fair. Gage read once or twice daily four or five days a week; discharge computed from graph based on gage readings. Records not adjusted for regulation by Bond Falls Reservoir or diversion to South Branch Ontonagon River by Bond Falls Canal (see p. 28).

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 11		Apr. 12 to Sept. 30			
4.9	220	4.6	183	6.6	1,380
5.2	320	4.9	262	8.0	2,660
5.6	490	5.2	370	9.6	4,850
5.9	650	5.5	520	10.7	6,460
6.2	840	6.0	850		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	264	310	260	*370	250	*290	922	745	370	250	265
2	235	*271	*290	260	320	250	290	922	645	346	217	239
3	232	296	285	260	290	275	280	1,430	1,730	334	220	220
4	232	306	285	265	260	275	270	1,780	4,850	316	288	217
5	235	328	280	275	240	275	265	1,130	6,460	294	294	210
6	244	368	270	280	210	*280	320	780	4,440	245	262	205
7	241	412	260	270	230	280	420	704	2,970	245	233	202
8	235	550	270	260	255	285	680	574	2,200	262	220	200
9	235	826	280	260	220	290	1,050	752	1,580	253	215	197
10	235	770	260	260	210	290	1,700	766	1,150	239	210	220
11	229	470	250	265	205	300	1,900	1,580	994	233	207	265
12	226	388	250	270	205	300	*2,200	1,580	866	298	205	281
13	244	384	245	270	190	310	2,310	1,730	759	354	202	259
14	254	380	235	270	210	315	2,640	1,880	632	316	200	236
15	285	400	235	270	220	320	1,980	1,630	520	278	197	233
16	292	370	245	265	*220	330	1,680	1,430	455	259	197	228
17	288	350	250	265	220	320	1,780	1,190	440	245	190	217
18	292	360	250	280	220	310	2,260	970	450	233	183	210
19	285	390	250	290	220	300	2,640	906	465	239	188	223
20	264	400	250	295	220	295	2,480	1,020	509	253	188	294
21	268	400	250	300	230	310	2,200	978	470	233	188	435
22	296	370	250	305	240	320	2,260	759	415	223	185	338
23	313	350	255	310	240	320	2,420	562	420	217	190	288
24	313	320	270	320	240	325	4,180	465	514	215	195	268
25	310	310	280	330	245	330	2,860	397	580	215	197	250
26	292	330	275	390	250	335	1,880	358	710	212	190	265
27	268	360	270	500	260	340	1,530	330	2,700	212	185	482
28	260	350	260	640	265	320	1,190	312	2,040	228	185	580
29	257	330	*250	700	270	315	1,000	312	724	308	197	504
30	254	320	240	540	-	310	930	410	445	316	233	392
31	257	-	260	430	-	310	-	402	-	288	262	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	8,109	313	226	262		
November	11,723	826	264	391		
December	8,110	310	235	262		
Calendar year 1943	236,984	6,620	223	649		
January	10,155	700	260	328		
February	6,975	370	190	241		
March	9,385	340	250	303		
April	47,885	4,180	265	1,596		
May	28,961	1,880	312	934		
June	41,878	6,460	415	1,396		
July	8,279	370	212	267		
August	6,573	294	183	212		
September	8,423	580	197	281		
Water year 1943-44	196,456	6,460	183	537		

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 14 to Apr. 11.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Ontonagon River near Rockland, Mich.

Location.- Water-stage recorder, lat. 46°43'15", long. 89°12'25", in sec. 20, T. 50 N., R. 39 W., at bridge on county road between Rockland and Victoria, 1¾ miles southwest of Rockland and 2 miles downstream from confluence of Middle and South Branches. Prior to Nov. 23, 1944, staff gage at same site and datum.

Drainage area.- 1,290 square miles.

Records available.- June 1942 to September 1944.

Extremes.- Maximum discharge during year, 12,600 second-feet June 5 (gage height, 15.69 feet); minimum daily, 472 second-feet (regulated) Sept. 4.

1942-44: Maximum discharge, 42,000 second-feet Aug. 22, 1942 (gage height, 28.6 feet from floodmark), from rating curve extended above 9,500 second-feet on basis of slope-area study; minimum daily, that of Sept. 4, 1944.

Remarks.- Records excellent except those for October and November, which are good, and those for periods of ice effect or no gage-height record, which are fair. Staff gage read three times daily prior to Nov. 23. Flow regulated by Victoria Power Plant, 5 miles above station, Bond Falls Reservoir, and Gogebic and Cisco Lakes.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

5.9	460	8.7	2,640
6.3	640	11.4	5,960
6.7	855	14.0	9,750
7.8	1,720	14.5	10,600

Discharge in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	705	581	620	560	1,130	670	850	2,920	1,630	1,810	746	849
2	e590	680	620	530	*650	670	680	2,920	1,510	1,390	725	695
3	a584	645	*590	540	920	670	720	3,700	2,530	1,120	735	645
4	670	695	560	580	880	660	650	5,160	3,820	960	843	472
5	695	660	540	580	860	640	860	4,540	10,600	995	869	711
6	680	e621	545	620	650	560	860	3,700	9,590	778	630	807
7	710	a505	615	620	750	700	880	2,640	7,920	843	773	720
8	680	a690	630	600	800	740	1,120	2,290	5,960	898	778	751
9	e634	a1,530	590	520	800	750	1,800	2,800	4,180	640	736	751
10	a529	a1,500	645	590	780	*760	2,900	2,800	3,340	730	751	655
11	630	a1,200	640	640	760	760	4,500	3,940	2,640	813	807	737
12	690	995	554	640	750	680	*4,800	3,700	2,260	918	768	883
13	705	e999	640	640	560	710	4,920	6,520	2,050	918	640	849
14	700	a900	640	630	630	820	5,700	5,960	2,050	843	750	807
15	740	665	640	640	700	820	5,180	5,120	1,720	746	795	813
16	e616	801	640	540	680	820	4,420	3,890	1,720	640	790	795
17	a531	819	640	600	700	850	4,060	3,100	1,510	735	768	685
18	710	790	570	640	700	830	*5,050	2,100	1,350	801	768	715
19	675	756	520	660	700	610	6,520	2,200	1,680	795	730	825
20	850	e864	600	680	530	640	6,800	2,310	1,390	807	610	755
21	605	a608	640	680	580	*800	5,960	1,900	1,350	790	650	960
22	655	670	640	680	670	780	5,700	2,000	1,370	725	700	862
23	e572	773	640	660	670	800	5,440	1,510	1,270	615	705	807
24	a503	778	640	680	640	780	7,850	1,390	1,920	728	705	630
25	837	690	620	770	650	800	7,640	1,350	1,660	801	756	705
26	795	823	570	820	650	680	6,100	1,350	1,630	825	756	813
27	730	807	610	1,320	560	720	5,830	1,270	4,320	801	640	995
28	630	593	620	1,800	650	800	4,300	1,110	4,180	807	695	1,150
29	630	610	*620	1,760	730	860	3,660	890	3,220	904	801	1,150
30	e590	620	620	1,480	-	840	3,040	819	2,000	710	873	1,010
31	a522	-	640	1,160	-	820	-	890	-	715	830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	20,193	837	503	651		
November	23,868	1,530	505	796		
December	18,899	645	520	610		
Calendar year 1943	567,604	9,270	503	1,555		
January	23,860	1,800	520	770		
February	20,960	1,130	530	723		
March	23,060	860	560	744		
April	119,190	7,850	680	3,973		
May	86,809	6,520	819	2,800		
June	92,390	10,600	1,270	3,080		
July	26,601	1,810	615	858		
August	23,104	869	610	745		
September	24,102	1,150	472	803		
Water year 1943-44	503,036	10,600	472	1,374		

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed by applying factor to weekly flow or on basis of records for stations on upstream tributaries.

e Once-daily gage reading not representative of average for day; discharge computed on basis of regulation pattern defined by subsequent records from water-stage recorder.

Note.- Stage-discharge relation affected by ice Nov. 29 to Dec. 5, Dec. 13 to Apr. 12 (no gage-height record Dec. 22-24, Mar. 9; discharge computed by comparison with records for nearby stations).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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Bond Falls Canal near Paulding, Mich.

Location.- Staff gage and concrete control, lat. 46°24'10", long. 89°09'00", in sec. 11, T. 46 N., R. 39 W., 40 feet upstream from intake to pipe line No. 2, 1.4 miles southeast of Paulding and 1½ miles downstream from Bond Falls Reservoir.

Records available.- July 1942 to September 1944.

Extremes (regulated).- Maximum discharge during year, 360 second-feet Aug. 16, Sept. 7 (gage height, 3.06 feet); minimum, 2.5 second-feet Nov. 3, 4, 11, 12 (gage height, 0.06 foot; one drain hole in weir open and canal gate closed).

1942-44: Maximum discharge, that of Aug. 16, Sept. 7, 1944; minimum, that of Nov. 3, 4, 11, 12, 1943; minimum gage height, -1.25 feet May 29, 1943 (two drain holes in weir open and canal gate closed).

Remarks.- Records excellent except those below 10 second-feet, which are fair. Gage read twice daily. Canal diverts from Bond Falls Reservoir to South Branch Ontonagon River; water is used for power production at Victoria Dam.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	2.8	49	80	3.2	255	103	4.1	57	172	255	321
2	265	2.6	49	80	3.2	260	145	4.1	57	129	255	143
3	182	2.5	36	80	3.2	260	145	4.1	58	117	254	62
4	93	2.5	4.1	80	3.2	216	145	4.7	58	117	193	114
5	93	2.6	4.1	80	3.2	187	145	4.7	127	117	100	327
6	93	2.8	3.6	80	3.2	187	144	4.7	188	117	7.1	340
7	93	2.8	3.4	80	59	186	100	4.7	202	117	128	360
8	93	3.0	3.6	80	187	186	3.2	4.7	202	117	285	358
9	93	2.8	3.6	80	259	184	3.2	4.7	202	117	285	358
10	93	2.6	3.6	90	259	184	2.8	5.0	129	117	283	356
11	133	2.5	3.2	104	259	b184	2.8	5.0	70	117	283	354
12	190	2.5	3.2	116	257	b182	2.8	5.0	110	117	288	350
13	190	2.8	3.2	127	257	b181	2.6	5.9	134	117	310	348
14	192	2.8	23	127	255	144	2.6	5.9	134	117	317	346
15	195	2.8	74	127	259	89	2.6	5.9	134	117	352	344
16	195	2.6	75	125	279	61	2.6	5.3	134	117	356	340
17	195	2.6	75	137	281	53	2.6	5.3	111	117	358	340
18	194	2.8	75	127	279	53	2.6	5.3	68	142	356	337
19	194	3.0	74	110	278	53	2.6	5.3	111	247	354	335
20	192	3.2	74	156	278	53	2.8	5.3	140	264	352	333
21	192	3.2	74	156	274	110	2.8	5.3	140	264	352	329
22	192	3.2	75	164	234	145	2.8	5.3	140	262	348	329
23	94	3.2	75	178	158	145	2.8	32	140	260	348	325
24	3.6	3.2	75	171	158	145	3.0	107	140	260	346	323
25	3.2	3.2	75	167	158	144	3.2	134	140	259	344	321
26	3.2	3.2	75	164	209	144	3.4	127	141	259	342	318
27	3.0	3.2	97	95	245	144	3.4	62	158	257	338	132
28	3.0	3.2	109	4.1	240	110	3.4	20	233	257	337	3.9
29	3.0	33	80	3.6	245	43	3.6	66	250	257	333	3.4
30	3.0	74	80	3.6	-	43	4.1	101	250	257	331	4.1
31	2.8	-	80	3.2	-	41	-	57	-	257	329	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,726.8	265	2.8	120		
November	187.2	74	2.5	6.24		
December	1,534.6	109	3.2	49.5		
Calendar year 1943	38,908.2	282	2.5	107		
January	3,175.5	178	3.2	102		
February	5,386.2	281	3.2	186		
March	4,372.0	260	41	141		
April	995.3	145	2.6	33.2		
May	816.3	134	4.1	26.3		
June	4,158	250	57	139		
July	5,558	264	117	179		
August	9,119.1	358	7.1	294		
September	8,254.4	360	3.4	275		
Water year 1943-44	47,283.4	360	2.5	129		

b Stage-discharge relation affected by ice.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

East Branch Ontonagon River near Mass, Mich.

Location.- Wire-weight gage, lat. 46°41'25", long. 89°04'20", in sec. 33, T. 50 N., R. 38 W., at county highway bridge, 5 miles south of Mass and 6½ miles upstream from mouth.

Drainage area.- 265 square miles.

Records available.- July 1942 to September 1944.

Extremes.- Maximum discharge during year, 3,530 second-feet June 5 (gage height, 10.19 feet, from graph based on gage readings); minimum, 102 second-feet, Aug. 16, 18, 19, 23-27 (gage height, 3.80 feet).

1942-44: Maximum discharge, 3,510 second-feet Aug. 22, 1942 (gage height, 10.39 feet, from graph based on gage readings); minimum, that of Aug. 16, 18, 19, 23-27, 1944.

Remarks.- Records good except those for period of ice effect, which are fair. Gage read twice daily.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

3.8	102	6.4	910
4.2	190	7.5	1,380
4.7	320	8.5	1,920
5.4	540	9.3	2,520

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	143	158	190	145	210	160	*167	505	255	205	147	160
2	141	158	185	150	*190	160	167	522	240	183	141	156
3	141	158	*160	150	185	160	167	558	575	165	141	145
4	143	163	170	150	175	160	167	575	610	154	141	123
5	143	160	165	150	165	160	167	522	2,520	138	130	121
6	143	163	160	150	160	*160	185	410	2,360	125	130	121
7	138	228	160	*137	155	160	195	350	1,150	143	130	115
8	138	314	160	135	150	160	195	335	750	147	115	115
9	138	344	160	135	150	160	255	371	540	147	115	112
10	136	410	160	135	145	165	300	410	380	141	115	125
11	138	425	160	135	140	170	360	470	320	145	115	160
12	141	410	160	135	140	170	410	645	272	240	115	188
13	141	359	160	135	140	170	465	1,150	265	238	112	163
14	141	290	150	135	140	180	520	910	268	202	110	154
15	156	255	145	135	140	180	570	470	258	167	108	141
16	156	215	140	135	135	180	628	440	240	149	106	136
17	160	205	135	135	140	180	698	338	205	136	110	134
18	160	208	130	140	140	180	*850	285	270	134	104	134
19	149	210	130	150	140	180	990	272	275	149	104	167
20	154	210	130	160	145	180	1,070	308	240	152	112	212
21	174	215	130	170	145	185	1,010	341	222	136	110	230
22	181	215	130	190	145	185	990	323	208	134	106	235
23	188	168	130	180	150	185	990	260	245	134	102	195
24	198	163	135	180	150	185	1,740	238	240	127	102	158
25	190	169	140	180	150	180	1,530	230	299	123	102	178
26	176	180	145	200	150	175	950	225	395	123	102	232
27	167	190	150	265	155	167	830	212	732	123	106	326
28	163	180	150	300	155	167	662	190	610	141	117	371
29	158	180	145	335	155	167	505	169	440	238	115	362
30	158	188	135	305	-	167	488	183	252	208	119	275
31	158	-	140	240	-	167	-	308	-	167	152	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,811	198	136	155	0.585	0.68
November	6,911	425	158	230	.868	.97
December	4,640	190	130	150	.566	.65
Calendar year 1943	105,066	1,860	130	288	1.09	14.76
January	5,377	335	135	173	.653	.75
February	4,440	210	135	153	.577	.62
March	5,305	185	160	171	.645	.74
April	18,221	1,740	167	607	2.29	2.56
May	12,525	1,150	169	404	1.52	1.76
June	15,636	2,520	205	521	1.97	2.19
July	4,914	240	123	159	.600	.69
August	3,634	152	102	117	.442	.51
September	5,444	371	112	181	.683	.76
Water year 1943-44	91,858	2,520	102	251	.947	12.88

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 26 to Apr. 15.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cisco Branch Ontonagon River near Watersmeet, Mich.

Location.- Chain gage, lat. 46°18'00", long. 89°24'55", in sec. 15, T. 45 N., R. 41 W., at bridge on U. S. Highway 2, 5 miles downstream from Cisco Lake and 11½ miles northwest of Watersmeet.

Drainage area.- 57 square miles.

Records available.- July 1942 to September 1944 (discontinued).

Extremes (regulated).- Maximum discharge during year, 288 second-feet May 14; maximum gage height observed, 5.12 feet Dec. 14 (ice jam); minimum, 4.4 second-feet Aug. 29 (gage height, 1.93 feet).

1942-44: Maximum discharge, 420 second-feet July 19, 1942; maximum gage height observed, 5.57 feet Mar. 25, 1943 (ice jam); minimum, 4.1 second-feet June 11, 1943 (gage height, 1.92 feet).

Remarks.- Records good except those below 20 second-feet and those for periods of ice effect or no gage-height record, which are fair. Gage read twice daily. Flow regulated by dam at outlet of Cisco Lake.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 14 to Nov. 22, Sept. 20-30)

Oct. 1 to Apr. 1		Apr. 2 to Sept. 30					
1.9	3.5	1.9	3.5	2.3	24	3.2	133
2.0	6.5	2.0	6.5	2.4	32	3.6	200
2.1	10.5	2.1	11	2.5	41	4.0	277
2.2	16	2.2	17	2.8	76		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	8.1	66	*170	85	35	35	33	62	59	80	11	5.3
2	8.9	66	160	85	40	35	36	68	70	25	9.6	5.0
3	8.5	64	150	85	40	35	38	79	85	24	9.6	5.3
4	8.5	64	145	85	40	35	40	68	93	22	9.2	6.5
5	8.9	68	140	85	40	35	45	75	224	21	8.8	5.9
6	8.1	54	135	*70	40	35	*48	72	257	19	8.8	5.6
7	8.1	17	130	65	40	*45	46	112	257	18	8.3	5.6
8	8.1	34	125	60	35	50	29	99	239	16	7.8	5.3
9	7.3	44	120	60	35	50	41	108	214	15	7.4	5.3
10	7.3	43	115	55	35	45	35	104	214	13	7.8	6.5
11	7.3	40	110	55	35	40	34	108	200	16	8.3	7.0
12	7.3	35	105	50	35	40	19	143	193	20	8.3	7.4
13	11	32	100	50	35	40	22	233	191	76	8.8	7.4
14	62	32	100	45	35	40	26	277	163	82	8.8	7.4
15	78	29	100	45	35	40	24	267	126	81	8.3	7.0
16	76	32	100	45	35	40	24	257	121	70	7.8	7.4
17	76	34	95	45	35	40	26	243	116	18	7.4	8.3
18	74	34	95	40	35	40	31	213	115	13	7.4	9.2
19	70	34	95	40	35	40	38	151	110	12	7.0	11
20	68	34	90	40	35	40	42	144	105	11	7.0	20
21	79	34	90	40	35	40	37	139	105	11	6.2	60
22	97	34	90	40	33	40	41	130	100	9.6	5.3	65
23	93	34	85	40	33	45	56	127	100	9.2	5.0	69
24	83	34	80	40	33	45	97	126	160	9.6	5.3	85
25	78	34	80	45	30	45	86	122	170	9.6	5.0	89
26	76	34	75	45	40	40	69	103	170	9.2	5.3	89
27	72	34	75	40	40	35	70	63	170	8.3	5.0	90
28	73	36	90	45	40	35	54	52	165	7.8	5.0	79
29	69	40	90	45	35	33	52	54	160	10	4.7	52
30	64	120	90	45	-	30	52	56	160	9.6	4.7	52
31	64	-	90	*45	-	30	-	57	-	11	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,459.4	97	7.3	47.1		
November	1,290	120	17	43.0		
December	3,315	170	75	107		
Calendar year 1943	27,102.2	364	4.1	74.3		
January	1,660	85	40	53.5		
February	1,049	40	30	36.2		
March	1,218	50	30	39.3		
April	1,291	97	19	43.0		
May	3,912	277	52	126		
June	4,612	257	59	154		
July	756.9	82	7.8	24.4		
August	223.9	11	4.7	7.22		
September	878.4	90	5.0	29.3		
Water year 1943-44	21,665.6	277	4.7	59.2		

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 14, Nov. 23 to Apr. 1, Apr. 4, 5. No gage-height record June 18 to July 3, July 5-7; discharge computed on basis of record of Cisco Lake stages and record of gate changes at Cisco Lake Dam.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Branch Ontonagon River at Ewen, Mich.

Location.- Staff gage, lat. 46°32'05", long. 89°16'30", in sec. 26, T. 48 N., R. 40 W., on piers of old M28 highway bridge in Ewen.

Drainage area.- About 320 square miles.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge during year, 3,380 second-feet (regulated) June 6 (gage height, 14.10 feet, from graph based on gage readings); minimum observed, 83 second-feet Aug. 7 (gage height, 1.00 feet).

1942-44: Maximum discharge, 4,300 second-feet Aug. 23, 1942 (gage height, 16.88 feet, from graph based on gage readings); minimum observed, that of Aug. 7, 1944.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read twice daily. Records not adjusted for diversion from Middle Branch Ontonagon River by Bond Falls Canal (see p. 28).

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 14		Apr. 15 to Sept. 30			
1.8	171	1.1	93	7.4	1,170
2.6	274	1.9	183	10.2	2,010
3.5	419	2.8	311	13.8	3,270
7.9	1,270	4.4	586		
9.3	1,690				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	334	246	*240	260	350	390	195	738	548	738	319	351
2	334	246	320	260	*320	390	274	814	494	494	311	304
3	326	240	345	260	290	390	281	890	990	359	281	165
4	220	240	325	260	280	380	281	1,290	1,380	327	237	126
5	183	246	300	260	250	360	267	1,590	2,080	304	196	222
6	183	267	290	*250	220	340	281	1,200	3,270	288	139	367
7	183	288	280	240	230	*320	326	871	3,130	274	93	383
8	177	455	280	230	300	320	342	738	2,120	266	258	391
9	177	643	275	210	380	330	567	776	1,350	251	327	391
10	177	548	230	210	420	340	852	852	1,010	244	327	400
11	177	437	190	210	410	340	1,110	833	814	244	327	416
12	214	410	175	230	390	340	1,270	970	681	266	319	416
13	274	358	190	240	370	330	1,480	1,740	662	266	335	408
14	288	318	205	255	370	300	1,690	2,540	662	281	343	400
15	326	330	220	265	380	270	1,680	2,120	624	296	351	400
16	358	345	250	265	*350	226	1,470	1,290	548	274	375	391
17	358	330	270	255	395	207	1,320	930	476	237	391	383
18	350	300	270	280	395	200	1,470	795	459	230	391	383
19	342	280	270	250	395	200	1,710	700	567	244	391	400
20	342	255	250	250	395	200	1,890	662	624	335	383	416
21	358	240	240	290	405	*253	1,830	624	586	343	375	442
22	455	220	230	300	380	288	1,470	567	512	335	375	442
23	624	205	220	310	300	288	1,350	548	512	335	375	459
24	473	205	210	310	300	274	1,740	548	586	319	375	459
25	392	220	215	320	300	281	2,430	567	605	319	375	442
26	367	225	220	400	340	281	2,680	567	643	319	367	476
27	326	205	230	510	390	281	1,980	512	1,010	319	367	567
28	296	185	250	540	390	288	1,070	351	1,500	319	359	459
29	281	175	240	510	390	246	890	281	1,470	343	359	383
30	267	190	240	440	-	204	776	327	1,070	343	359	288
31	253	-	270	390	-	189	-	400	-	335	359	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	9,415	624	177	304		
November	8,852	643	175	295		
December	7,740	345	175	250		
Calendar year 1943	185,081	2,710	114	507		
January	9,260	540	210	299		
February	10,085	420	220	348		
March	9,046	390	189	292		
April	34,972	2,680	195	1,166		
May	27,631	2,540	281	891		
June	30,983	3,270	459	1,033		
July	9,847	738	230	318		
August	10,139	391	93	327		
September	11,530	567	126	384		
Water year 1943-44	179,500	3,270	93	490		

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 15 to Mar. 15, Mar. 18-20.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Branch Ontonagon River near Bergland, Mich.

Location.- Water-stage recorder, lat. 46°35'30", long. 89°32'20", in sec. 3, T. 48 N., R. 42 W., a quarter of a mile downstream from dam at outlet of Gogebic Lake and 1¼ miles east of Bergland. Datum of gage is 1,290.81 feet above mean sea level, datum of 1929.

Drainage area.- 160 square miles.

Records available.- July 1942 to September 1944.

Extremes (regulated).- Maximum discharge during year, 940 second-feet May 3 (gage height, 4.98 feet); minimum, 27 second-feet Nov. 7 (gage height, 1.10 feet).
1942-44: Maximum discharge, 1,100 second-feet May 6, 1943 (gage height, 5.41 feet); minimum, that of Nov. 7, 1944.

Remarks.- Records excellent. Flow regulated by Gogebic Lake.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 2 to Sept. 30)

1.1	27	2.6	162
1.4	43	2.9	222
1.7	65	3.4	350
2.1	101	4.3	660
2.4	131	4.8	860

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	29	54	38	39	124	50	820	194	392	175	118
2	152	28	52	38	39	123	50	800	188	377	155	59
3	150	28	52	37	39	122	115	840	252	342	84	59
4	147	28	53	37	39	99	192	860	325	301	82	106
5	143	28	48	38	40	57	188	840	602	280	82	172
6	143	28	49	38	40	86	186	840	680	296	82	188
7	139	28	49	39	40	108	180	820	720	212	139	184
8	135	32	49	39	41	111	115	780	700	166	215	117
9	121	32	49	39	41	110	44	740	720	150	176	56
10	128	34	48	39	41	110	45	629	700	146	118	55
11	127	35	49	39	41	70	46	489	640	140	108	81
12	123	35	48	39	41	39	48	473	602	139	78	112
13	129	35	50	39	41	39	50	660	568	138	78	103
14	130	36	51	38	73	40	51	660	550	139	163	103
15	113	36	108	38	128	41	52	660	515	124	283	88
16	107	37	166	38	123	41	55	542	462	113	265	52
17	106	38	162	38	120	42	59	365	386	109	248	92
18	105	38	158	38	120	42	63	356	362	109	198	115
19	101	38	154	38	120	92	67	356	295	134	85	105
20	101	38	132	39	116	173	70	359	184	236	140	112
21	107	39	61	39	114	207	74	353	215	231	175	120
22	120	39	37	39	112	200	79	347	200	189	136	108
23	85	39	38	39	97	196	86	333	186	144	70	51
24	34	40	38	39	56	194	99	319	176	198	80	48
25	34	44	38	40	55	194	242	319	186	245	67	45
26	33	51	38	41	59	188	529	301	190	231	67	45
27	33	51	38	40	61	184	800	270	330	158	65	47
28	32	50	38	40	78	178	820	238	442	111	108	48
29	30	53	38	39	126	132	820	229	414	160	156	49
30	28	54	38	39	-	50	820	194	414	184	158	48
31	28	-	38	39	-	49	-	207	-	180	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,122	158	28	101		
November	1,121	54	28	37.4		
December	2,021	166	37	65.2		
Calendar year 1943	78,049	1,020	28	214		
January	1,200	41	37	38.7		
February	2,080	128	39	71.7		
March	3,441	207	39	111		
April	6,095	820	44	203		
May	15,999	860	194	516		
June	12,398	720	176	413		
July	6,074	392	109	196		
August	4,194	283	65	135		
September	2,686	188	45	89.5		
Water year 1943-44	60,431	860	28	165		

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sturgeon River near Sidnaw, Mich.

Location.- Chain gage, lat. 46°35', long. 88°35', in sec. 5, T. 48 N., R. 34 W., at bridge on county road, 2 miles downstream from Rock River, 4 miles upstream from Perch River, 3½ miles northwest of Covington, and 9 miles northeast of Sidnaw.

Drainage area.- 155 square miles.

Records available.- October 1912 to September 1915, April 1943 to September 1944.

Extremes.- Maximum discharge during year, 3,160 second-feet June 6 (gage height, 10.18 feet); minimum, 14 second-feet Oct. 10; minimum gage height, 3.65 feet Aug. 25, from graph based on gage readings.
1912-15, 1943-44: Maximum discharge, 3,280 second-feet May 7, 1943; maximum gage height, that of June 6, 1944; minimum, 13 second-feet Aug. 21, 1943; minimum gage height, that of Aug. 25, 1944.

Remarks.- Records good above 150 second-feet and fair below, except those for period of ice effect, which are poor. Gage read once daily.

Rating tables, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 8				Apr. 9 to Sept. 30					
3.7	14	4.5	82	3.6	16	4.6	93	7.6	1,110
3.8	19	4.8	131	3.7	20	4.9	137	8.6	1,730
4.0	31	5.1	192	3.8	25	5.2	195	9.6	2,550
4.2	46	5.5	295	3.9	31	5.5	275	10.0	2,950
4.3	56			4.1	45	5.9	400		
				4.4	71	6.6	655		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	31	56	27	95	38	43	758	251	187	320	73
2	17	32	54	27	90	37	42	802	240	148	205	67
3	18	34	53	27	65	*36	41	758	260	105	185	56
4	19	37	51	27	55	36	42	735	470	89	155	47
5	18	41	49	27	50	37	44	675	1,560	80	134	42
6	18	55	48	27	48	37	50	595	2,950	72	112	42
7	18	72	46	*27	45	38	*60	505	2,280	64	89	41
8	16	115	44	27	43	37	80	414	1,520	58	78	38
9	16	225	42	27	41	38	115	376	1,060	53	68	36
10	14	277	40	27	39	41	183	353	780	49	58	46
11	15	225	38	27	37	41	240	404	595	46	49	57
12	16	197	37	27	35	43	269	505	470	63	42	66
13	16	168	35	27	35	44	302	892	379	109	37	78
14	19	144	34	27	35	44	359	960	335	167	35	77
15	24	131	32	27	*32	45	400	870	308	129	34	74
16	27	110	31	29	31	44	359	758	245	100	32	70
17	26	96	30	31	30	45	463	655	218	86	29	64
18	26	85	29	32	27	44	558	522	210	73	27	60
19	27	86	28	33	27	42	695	418	222	61	27	55
20	27	86	28	33	28	41	780	359	230	61	27	115
21	30	86	27	33	29	40	870	329	210	66	25	281
22	33	79	27	31	28	39	938	314	183	64	22	281
23	34	71	28	30	28	39	1,060	299	218	57	20	245
24	36	64	28	31	27	43	1,430	257	323	54	18	210
25	37	60	28	*35	28	49	1,660	222	372	60	18	150
26	40	58	28	55	32	50	1,400	202	365	67	19	141
27	40	61	28	75	36	49	1,160	179	335	75	19	254
28	37	54	29	100	39	49	1,040	157	302	148	21	404
29	36	52	28	100	39	46	938	146	254	407	24	386
30	34	*55	27	100	-	44	848	146	215	505	33	311
31	31	-	27	100	-	46	-	200	-	442	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	783	40	14	25.3	0.163	0.19
November	2,887	277	31	96.2	.621	.69
December	1,110	56	27	35.8	.231	.27
Calendar year	-	-	-	-	-	-
January	1,253	100	27	40.4	.261	.30
February	1,174	95	27	40.5	.261	.28
March	1,302	50	36	42.0	.271	.31
April	16,469	1,660	41	549	3.54	3.95
May	14,765	960	146	476	3.07	3.54
June	17,360	2,950	183	579	3.74	4.17
July	3,745	505	46	121	.781	.90
August	2,013	320	18	64.9	.419	.48
September	3,867	404	36	129	.832	.93
Water year 1943-44	66,728	2,950	14	182	1.17	16.01

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 8 to Apr. 8.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sturgeon River near Baraga, Mich.

Location.- Wire-weight gage, lat. 46°47', long. 88°37', in sec. 28, T. 51 N., R. 34 W., at bridge on State Highway 35, 6 miles west of Baraga and 6 miles downstream from Prickett Dam. Datum of gage is 660.00 feet above mean tide at New York City (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 364 square miles.

Records available.- October 1942 to September 1944.

Extremes.- Maximum discharge observed during year, 4,320 second-feet June 7 (gage height, 13.91 feet); minimum daily discharge, 50 second-feet (regulated) Aug. 27.
1942-44: Maximum discharge, 4,830 second-feet May 7, 1943 (gage height, 14.87 feet, from graph based on gage readings); minimum daily that of Aug. 27, 1944.

Remarks.- Records good except those below 500 second-feet, those for periods of ice effect, and those for periods of extensive regulation, which are fair. Gage read twice daily. Flow regulated by power plant at Prickett Dam.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	159	e160	204	250	307	202	204	1,270	560	478	e570	e190
2	157	e160	194	293	249	196	204	1,270	546	468	e560	e200
3	133	e160	192	229	*e250	*208	204	1,310	573	519	e530	68
4	e120	154	174	180	249	238	206	1,230	506	478	492	133
5	e140	e160	210	140	238	e230	208	1,230	2,050	468	439	208
6	e140	e160	246	135	210	222	210	1,070	3,970	413	336	216
7	e140	e150	198	135	170	246	244	930	4,040	387	274	165
8	e140	e200	160	135	180	293	264	660	2,620	312	324	147
9	e140	e420	160	170	165	281	348	830	2,150	238	324	141
10	e135	e480	150	150	190	336	e450	725	1,600	224	312	71
11	e140	e560	140	145	180	278	e510	795	1,310	238	264	129
12	e140	e490	140	145	180	278	e560	e90	1,230	336	233	e320
13	e140	e400	140	145	160	274	e560	1,650	890	324	176	e250
14	e140	298	140	145	170	274	e560	1,800	e600	374	165	e210
15	e140	238	140	145	180	269	e570	1,650	e730	426	163	e190
16	e140	214	140	170	185	283	e540	1,400	690	312	204	e200
17	136	274	140	155	*185	262	e560	1,150	e620	278	204	72
18	152	240	140	145	180	229	e580	1,070	573	262	190	108
19	182	238	180	145	175	e165	742	708	573	255	172	e210
20	172	238	185	145	175	e165	1,190	870	601	255	118	e200
21	176	238	150	145	190	e165	1,400	778	587	238	108	e240
22	172	e250	140	145	180	e175	1,500	725	587	229	192	324
23	180	e285	135	192	180	e165	1,650	675	587	e200	141	e380
24	150	271	135	165	180	e170	2,680	601	573	e200	133	302
25	178	233	230	*150	210	e190	e2,800	587	587	e200	125	361
26	176	e240	280	e250	224	e180	e2,500	573	708	e205	130	298
27	150	e240	200	e260	229	204	e1,800	546	795	210	e50	e400
28	150	e220	*160	e380	198	224	e1,500	506	812	224	102	e490
29	161	184	145	e390	196	e230	e1,400	519	616	e240	e190	e560
30	e160	192	145	387	-	229	1,350	546	560	312	e190	e580
31	e150	-	145	324	-	214	-	573	-	e470	e190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,689	182	120	151	-	-
November	7,767	580	150	259	-	-
December	5,238	280	135	169	-	-
Calendar year 1943	182,900	4,690	113	501	1.38	18.69
January	6,090	390	135	196	-	-
February	5,785	307	160	199	-	-
March	7,075	336	165	228	-	-
April	27,494	2,800	204	916	-	-
May	29,137	1,800	506	940	-	-
June	33,044	4,040	506	1,101	-	-
July	9,767	519	200	315	-	-
August	7,601	570	50	245	-	-
September	7,363	580	68	245	-	-
Water year 1943-44	151,050	4,040	50	413	1.13	15.44

* Winter discharge measurement made on this day.
e Gage readings not representative of discharge for day because of extensive regulation; discharge computed on basis of Prickett Dam power-plant records.
Note.- Stage-discharge relation affected by ice Dec. 8 to Jan. 1, Jan. 5-22, 24, 25, Feb. 6-24.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sturgeon River near Arnheim, Mich.

Location.- Staff gage, lat. 46°56', long. 88°33', in sec. 6, T. 52 N., R. 33 W., a quarter of a mile downstream from Otter Lake, 3 miles northwest of Arnheim, and 8½ miles northeast of Pelkie. Datum of gage is 605.98 feet above mean tide at New York City (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 680 square miles.

Records available.- November 1942 to September 1944.

Extremes.- Maximum discharge during year, 6,600 second-feet Apr. 25; maximum gage height, 13.88 feet Apr. 25, from graph based on gage readings; minimum discharge, 260 second-feet Aug. 29 (gage height, 1.54 feet, from graph based on gage readings).

1942-44: Maximum discharge, that of Apr. 25, 1944; maximum gage height, 13.93 feet Apr. 26, 1943, from graph based on gage readings; minimum discharge, that of Aug. 29, 1944.

Remarks.- Records good except those above 4,000 second-feet and those for periods of ice effect, which are fair. Gage read twice daily. Records do not include overflow which leaves stream about 2 miles above Otter Lake during very high stages. This flow floods the flats to the north and east of Sturgeon River; it may return to the river 3 miles from the gage, or it may pass directly into Portage Lake through Snake River.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	310	360	330	618	340	370	2,930	837	946	530	312
2	300	310	360	330	555	330	370	2,740	864	837	592	322
3	300	320	360	360	*518	330	360	2,590	918	758	630	332
4	290	320	350	370	492	340	360	2,500	1,060	732	655	322
5	290	330	350	360	480	350	*350	2,410	1,300	706	680	312
6	290	330	360	350	440	360	360	2,190	2,460	680	706	322
7	280	340	370	350	390	370	390	1,880	3,520	655	680	322
8	280	390	360	342	360	380	460	1,570	3,780	618	605	322
9	280	488	370	342	350	400	530	1,430	3,670	555	568	322
10	280	588	340	352	340	420	630	1,390	3,200	492	542	332
11	280	650	290	342	350	440	784	1,300	2,630	456	505	332
12	280	700	280	342	350	450	916	1,360	2,140	480	468	322
13	290	675	290	342	350	450	1,120	1,750	1,700	555	432	342
14	290	625	290	342	340	450	1,330	2,070	1,460	580	385	352
15	300	575	290	342	340	440	1,460	2,270	1,300	580	352	352
16	300	500	300	342	340	*440	1,480	2,300	1,150	592	332	352
17	300	462	310	342	*330	440	1,490	2,100	1,120	555	332	352
18	290	450	330	332	330	430	1,650	1,760	1,060	518	332	332
19	300	450	340	342	330	420	1,970	1,490	1,120	480	322	303
20	300	438	340	352	320	380	2,470	1,360	1,120	456	322	312
21	310	438	360	352	320	360	2,850	1,270	1,060	444	312	352
22	320	425	370	352	330	350	3,150	1,180	974	420	294	396
23	330	425	360	363	330	340	3,430	1,120	946	408	294	444
24	340	412	360	374	330	340	4,820	1,060	918	396	294	468
25	330	425	360	374	340	350	6,400	1,000	891	374	285	480
26	330	425	360	374	340	360	5,540	946	918	374	285	492
27	330	412	390	408	350	360	4,550	891	974	363	285	505
28	320	400	400	492	350	360	4,030	864	1,090	363	276	542
29	320	360	380	568	340	370	3,550	810	1,120	396	260	605
30	320	350	350	630	-	370	3,250	784	1,030	444	276	655
31	310	-	330	655	-	370	-	784	-	468	294	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	9,380	340	280	303	0.446	0.51
November	13,323	700	310	444	.653	.73
December	10,660	400	280	344	.506	.58
Calendar year 1943	328,721	5,940	280	901	1.32	17.98
January	11,848	655	330	382	.562	.65
February	10,953	618	320	378	.556	.60
March	11,890	450	330	384	.565	.65
April	60,422	6,400	350	2,014	2.96	3.31
May	50,099	2,930	784	1,616	2.38	2.74
June	46,330	3,780	837	1,544	2.27	2.53
July	16,681	946	363	538	.791	.91
August	13,125	706	260	423	.622	.72
September	11,510	655	303	384	.565	.63
Water year 1943-44	266,221	6,400	260	727	1.07	14.56

* Winter discharge measurement made on this day.

Note.- Discharge computed using rate of change of stage as a factor Apr. 15 to May 9, May 13-19, June 6-14. Stage-discharge relation affected by ice Feb. 6 to Apr. 5.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Otter River near Elo, Mich.

Location.- Wire-weight gage, lat. 46°52', long. 88°37', in sec. 34, T. 52 N., R. 34 W., at highway bridge, 1¼ miles southeast of old Elo school and 3 miles upstream from Otter Lake.

Drainage area.- 175 square miles.

Records available.- November 1942 to September 1944.

Extremes.- Maximum discharge during year, 4,300 second-feet Apr. 24 (gage height, 13.30 feet); minimum, 76 second-feet Aug. 27 (gage height, 3.46 feet, from graph based on gage readings).
1942-44: Maximum discharge, that of Apr. 24, 1944; minimum, that of Aug. 27, 1944.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read twice daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-14		Oct. 15 to Sept. 30			
3.5	85	3.4	69	8.1	1,080
3.7	111	3.7	108	9.0	1,380
		4.5	235	10.8	2,150
		5.4	409	11.5	2,590
		7.0	780	12.6	3,600

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	95	120	100	110	110	125	730	152	146	112	97
2	92	95	115	100	130	110	120	705	146	129	101	97
3	89	102	115	100	*135	110	115	632	271	117	93	85
4	90	110	110	105	130	110	115	730	308	108	136	89
5	89	112	110	110	130	105	*120	566	1,050	102	215	88
6	90	118	112	105	110	105	125	452	990	105	191	89
7	88	126	115	100	105	105	140	367	586	111	146	86
8	89	262	115	105	100	105	170	318	398	105	123	84
9	88	262	116	105	105	105	201	327	280	100	110	84
10	89	191	126	105	100	105	253	289	226	98	108	108
11	89	158	145	110	100	115	298	318	193	102	107	122
12	90	141	130	110	100	115	*367	337	172	218	95	108
13	94	128	110	110	100	115	485	586	172	179	88	104
14	99	134	110	110	100	115	563	463	196	135	84	95
15	105	140	125	110	*95	*115	507	367	182	114	82	90
16	100	134	115	110	90	115	507	298	308	102	85	89
17	94	141	110	115	105	115	574	253	271	98	85	88
18	95	135	105	120	100	115	755	218	452	110	82	86
19	94	116	105	125	95	105	990	204	452	107	80	85
20	91	116	95	115	100	120	1,200	226	308	102	84	94
21	93	114	90	130	105	115	1,170	211	235	98	84	134
22	111	112	85	140	105	120	1,300	199	193	93	79	141
23	116	108	95	135	105	120	1,300	191	196	90	79	112
24	107	115	95	125	105	120	3,600	185	199	88	79	101
25	100	120	100	*130	100	130	2,930	174	188	85	79	98
26	97	115	100	140	110	130	1,500	177	166	84	77	102
27	94	111	100	175	115	125	1,260	155	280	88	77	123
28	93	98	*100	190	115	110	1,050	140	260	116	81	136
29	91	105	90	175	115	125	880	138	196	218	81	135
30	91	110	95	145	-	125	805	141	167	177	81	117
31	93	-	100	155	-	125	-	150	-	135	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,936	118	88	94.7	0.541	0.62
November	3,924	262	95	131	.749	.83
December	3,354	145	85	108	.617	.71
Calendar year 1943	90,441	3,020	81	248	1.42	19.21
January	3,810	190	100	123	.703	.81
February	3,115	135	90	107	.611	.66
March	3,560	130	105	115	.657	.76
April	23,525	3,600	115	784	4.48	5.00
May	10,267	730	138	331	1.89	2.18
June	9,213	1,050	146	307	1.75	1.96
July	3,660	218	84	118	.674	.78
August	3,098	215	77	99.9	.571	.66
September	3,065	141	84	102	.583	.65
Water year 1943-44	73,527	3,600	77	201	1.15	15.62

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 24-26, Nov. 30 to Dec. 5, Dec. 7, 8, Dec. 11 to Apr. 8.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Manistique Lake Outlet at Curtis, Mich.

Location.- Staff gage, lat. 46°12'20" (corrected), long. 85°44'10", in sec. 18, T. 44 N., R. 11 W., 1,000 feet downstream from South Manistique Lake, a quarter of a mile east of Curtis, and three-quarters of a mile upstream from Black Creek.

Drainage area.- 44 square miles.

Records available.- May 1942 to September 1944 (discontinued).

Extremes.- Maximum discharge during year, 88 second-feet May 15 (gage height, 2.67 feet); minimum, 0.6 second-foot (regulated) Sept. 7, 9 (gage height, 0.51 foot).
1942-44: Maximum discharge, 180 second-feet June 21-23, 1943 (gage height, 3.86 feet, from graph based on gage readings); practically no flow July 14, 1942 (gage height, 0.40 foot).

Remarks.- Records good except those for period Oct. 1-10 and those below 3 second-feet, which are fair. Gage read once daily. Flow regulated by South Manistique Lake.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 10)

Oct. 1-9, Dec. 15 to Sept. 30						Oct. 10 to Dec. 14	
0.5	0.6	0.9	6.6	2.1	50	1.3	14
.6	1.6	1.1	11	2.5	75	1.6	24
.7	3.0	1.5	23	2.7	90	1.7	28
.8	4.7	1.8	35			2.0	44

Discharge, in second-feet, water year October 1943 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	22	23	40	31	25	20	24	64	58	1.7	1.7	0.9
2	21	21	40	30	25	20	24	67	56	1.6	1.7	.8
3	20	20	39	29	24	20	24	73	55	1.5	1.7	.8
4	20	20	40	29	24	20	23	73	53	1.5	1.6	.9
5	20	21	39	29	24	19	23	74	55	1.5	1.5	.9
6	19	22	39	30	25	19	23	76	49	1.5	1.5	.7
7	19	25	39	29	24	21	23	78	48	1.5	1.4	.6
8	18	34	38	29	24	21	23	78	46	1.4	1.4	.7
9	17	33	37	29	24	21	23	78	45	1.4	1.4	.6
10	16	32	36	28	23	22	24	79	22	1.3	1.3	.8
11	15	36	36	28	23	22	24	81	6.4	1.4	1.2	.7
12	15	36	36	27	23	22	25	83	6.0	1.3	1.2	.8
13	18	38	36	27	22	22	26	85	6.0	1.2	1.0	.8
14	21	40	36	27	22	22	27	86	6.2	1.0	1.0	18
15	19	39	36	26	22	22	28	87	6.0	1.2	1.3	40
16	17	38	36	26	22	22	29	85	6.0	1.0	1.2	39
17	18	27	36	25	22	22	31	84	6.0	1.0	1.0	40
18	20	39	35	26	22	22	32	82	6.2	1.0	1.5	39
19	20	21	35	25	22	22	33	81	5.6	1.4	1.6	38
20	20	42	35	25	21	22	34	78	5.3	1.2	1.2	38
21	20	42	35	25	21	22	36	78	4.9	1.2	1.2	40
22	20	42	35	24	21	22	38	77	4.6	1.2	1.0	38
23	20	42	34	24	21	22	39	76	4.6	1.7	1.2	38
24	20	42	33	24	21	22	44	74	4.7	1.6	1.0	38
25	20	42	33	24	20	22	50	71	4.6	1.4	.9	37
26	20	42	33	24	20	22	53	69	4.7	1.5	.9	37
27	20	42	32	24	21	22	56	67	4.7	1.5	1.0	39
28	20	42	31	25	20	22	59	66	2.7	1.6	1.0	40
29	20	42	32	25	20	23	61	64	1.9	1.5	1.0	40
30	19	41	31	25	-	25	60	62	1.7	1.6	.9	38
31	20	-	31	25	-	24	-	60	-	1.7	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	594	22	15	19.2	-	-
November	1,026	42	20	34.2	-	-
December	1,104	40	31	35.6	-	-
Calendar year 1943	20,072	180	11	55.0	1.25	16.97
January	824	31	24	26.6	-	-
February	648	25	20	22.3	-	-
March	671	25	19	21.6	-	-
April	1,019	61	23	34.0	-	-
May	2,336	87	60	75.4	-	-
June	585.8	58	1.7	19.5	-	-
July	43.1	1.7	1.0	1.39	-	-
August	38.5	1.7	.9	1.24	-	-
September	647.0	40	.6	21.6	-	-
Water year 1943-44	9,536.4	87	.6	26.1	.59	8.06

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Manistique River near Germfask, Mich.

Location.- Staff gage, lat. 46°15'25", long. 85°52'20", in sec. 36, T. 45 N., R. 13 W., at bridge on State Highway 98, half a mile upstream from Fox River, 2 miles downstream from Manistique Lake, and 2½ miles east of Germfask. Auxiliary water-stage recorder on Manistique Lake at Outlet from South Manistique Lake.

Drainage area.- 120 square miles.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge during year, 219 second-feet May 20; maximum gage height, 3.96 feet Apr. 26; maximum reverse flow, 133 second-feet Apr. 26; minimum gage height, 0.54 foot Aug. 28.

1942-44: Maximum discharge, 446 second-feet June 29, 1943 (from graph based on gage readings); maximum gage height, 5.70 feet June 22, 25, 1943 (from graph based on gage readings); maximum reverse flow, 161 second-feet Apr. 24, 1943 (from graph based on gage readings); minimum gage height, 0.16 foot Sept. 1, 1942 (from graph based on gage readings).

Remarks.- Records good except those below 50 second-feet, those for periods of reverse flow, shifting control, or no auxiliary gage-height record, which are fair. Gage read once daily. Stage-discharge relation affected by backwater from Fox River; discharge computed using fall as determined by auxiliary water-stage recorder as a factor. Occasionally during high stages of Fox River the flow at this station is reversed.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	124	110	125	128	118	98	104	79	196	144	105	46
2	122	110	127	127	115	100	105	61	194	141	111	46
3	122	110	129	129	115	99	101	70	185	139	110	49
4	120	107	130	128	115	99	102	89	182	138	105	60
5	116	108	132	129	115	99	101	89	185	134	94	69
6	116	104	132	129	115	99	103	104	192	130	101	75
7	114	94	132	129	113	101	103	115	182	129	101	76
8	115	95	135	129	114	102	102	140	179	129	91	71
9	114	99	138	128	113	102	103	164	176	129	87	68
10	108	94	140	127	112	102	101	174	173	125	85	67
11	105	88	139	125	112	101	100	180	170	120	87	65
12	105	97	140	125	109	102	100	178	169	120	86	58
13	115	109	140	124	110	102	98	202	162	111	83	53
14	115	102	140	124	109	101	82	198	167	107	83	57
15	114	104	139	122	108	101	73	202	167	109	80	61
16	116	a110	139	123	109	104	62	205	169	103	76	59
17	118	a119	138	122	106	104	47	209	165	101	64	55
18	114	a115	137	120	107	104	38	204	156	98	62	54
19	110	a110	137	121	107	101	-42	209	169	102	59	53
20	107	a119	134	122	107	101	-76	216	160	99	58	61
21	102	119	134	122	103	101	-99	216	155	93	57	71
22	105	a117	145	118	103	104	-94	216	158	90	54	66
23	104	a121	124	120	101	101	-110	218	160	88	49	64
24	105	a121	124	117	101	100	-116	214	158	98	48	65
25	107	a121	128	118	101	101	-127	211	152	97	47	66
26	107	a121	134	119	101	100	-131	214	149	103	47	68
27	108	a121	132	118	102	102	-110	212	148	117	45	78
28	107	121	130	119	101	101	-62	211	149	115	42	81
29	112	121	130	119	100	103	-33	204	151	121	41	81
30	109	122	130	118	-	103	19	202	147	119	40	78
31	105	-	130	117	-	104	-	200	-	108	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,461	124	102	112	0.933	1.07
November	3,309	122	88	110	.917	1.03
December	4,144	145	124	134	1.12	1.28
Calendar year 1943	57,470	404	-150	157	1.31	17.82
January	3,816	129	117	123	1.02	1.18
February	3,142	118	100	108	.900	.97
March	3,142	104	98	101	.842	.97
April	644	105	-131	21.5	.179	.20
May	5,406	218	61	174	1.45	1.68
June	5,025	196	147	168	1.40	1.56
July	3,557	144	88	115	.958	1.10
August	2,237	111	39	72.2	.602	.69
September	1,921	81	46	64.0	.533	.60
Water year 1943-44	39,804	218	-131	109	.908	12.33

a No gage-height record for auxiliary gage.

Note.- Slope-stage discharge relation indefinite Apr. 18, discharge computed on basis of discharge measurement. Shifting-control method used Dec. 1-10, Apr. 19-29, Aug. 28-30. Negative sign indicates reverse flow.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Manistique River at Germfask, Mich.

Location.- Water-stage recorder, lat. 46°14'00", long. 85°55'40", in SE¼ sec. 4, T. 44 N., R. 13 W., 1 mile south of Germfask and 1½ miles upstream from Grays Creek.

Drainage area.- 341 square miles.

Records available.- March 1938 to September 1944.

Extremes.- Maximum discharge during year, 1,000 second-feet Apr. 26 (gage height, 4.62 feet); minimum daily, 221 second-feet Aug. 27.
1938-44: Maximum discharge observed, 2,130 second-feet Apr. 1, 1938 (gage height, 8.50 feet, site and datum then in use); minimum observed, 184 second-feet Aug. 27, 29, 30, Sept. 6, 1938.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

1.5	217	4.3	924
2.3	396	4.6	1,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	360	458	458	400	434	*360	372	813	534	396	458	265
2	360	458	458	400	421	338	360	840	521	372	408	280
3	360	446	446	405	408	338	360	868	534	360	360	280
4	360	446	434	405	421	330	360	868	547	338	338	275
5	360	446	434	405	408	325	349	840	547	338	326	305
6	360	484	434	405	396	314	360	840	508	338	314	360
7	349	521	421	405	384	314	384	840	484	326	303	400
8	349	625	*421	400	380	314	421	813	471	314	292	420
9	349	664	421	405	372	303	434	786	446	314	281	430
10	349	664	408	390	370	310	458	732	434	326	281	420
11	349	664	360	390	365	314	496	732	421	314	292	408
12	349	651	338	390	360	349	534	759	408	314	292	360
13	360	638	338	385	355	355	599	759	421	314	277	338
14	458	612	390	385	350	360	678	759	446	314	266	338
15	496	599	425	390	349	360	732	732	458	303	259	349
16	508	560	425	400	345	360	705	705	471	292	257	338
17	496	586	420	410	345	360	732	678	484	279	257	326
18	496	521	410	410	340	360	*786	651	508	274	248	314
19	508	534	410	410	340	355	813	612	521	292	242	303
20	547	534	410	*420	340	349	868	586	508	292	242	314
21	560	521	405	410	338	349	896	573	484	281	251	360
22	560	508	390	400	338	349	924	560	446	274	248	372
23	560	496	390	400	338	349	896	547	434	270	238	372
24	547	471	390	396	338	349	952	521	421	303	230	349
25	534	458	390	384	338	360	980	508	408	326	225	338
26	521	484	400	396	338	384	1,000	496	396	326	223	349
27	496	471	400	446	349	384	1,000	484	384	372	221	372
28	484	471	395	458	349	372	952	471	396	434	222	396
29	458	396	395	471	349	372	896	458	434	484	223	396
30	446	408	395	471	-	360	840	446	421	496	230	384
31	446	-	400	458	-	360	-	496	-	484	240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	13,735	560	349	443	1.30	1.50
November	15,795	664	396	526	1.54	1.72
December	12,611	458	338	407	1.19	1.38
Calendar year 1943	200,142	1,480	250	548	1.61	21.82
January	12,700	471	384	410	1.20	1.39
February	10,558	434	338	364	1.07	1.15
March	10,756	384	303	347	1.02	1.17
April	20,137	1,000	349	671	1.97	2.20
May	20,773	868	446	670	1.96	2.27
June	13,896	547	384	463	1.36	1.52
July	10,460	496	270	337	.988	1.14
August	8,544	458	221	276	.809	.93
September	10,511	430	265	350	1.03	1.15
Water year 1943-44	160,476	1,000	221	438	1.28	17.52

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 14 to Jan. 23, Feb. 8, 10-14, 16-20, 24, Mar. 4, 5, 7, 10, 13, 19. No gage-height record Aug. 28 to Sept. 10; discharge computed on basis of weather records and records for stations on nearby streams.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Manistique River near Blaney, Mich.

Location.- Water-stage recorder, lat. 46°05'05", long. 86°03'35", in NE¼ sec. 33, T. 43 N., R. 14 W., half a mile downstream from Duck Creek and 7 miles southwest of Blaney.

Drainage area.- 704 square miles.

Records available.- March 1938 to September 1944.

Extremes.- Maximum discharge during year, 2,570 second-feet Apr. 28 (gage height, 14.58 feet); minimum discharge, 300 second-feet Aug. 27, 28 (gage height, 6.20 feet).
1938-44: Maximum discharge observed, 9,300 second-feet Apr. 1, 1938 (gage height, 19.42 feet); minimum, 234 second-feet Aug. 19-24, 1941; minimum gage height, 5.63 feet Aug. 23, 1941.

Remarks.- Records excellent except those for periods of ice effect or shifting control, which are fair.

Rating table, water year 1943-44, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

6.2	300	12.0	1,630
7.0	443	12.8	1,870
9.0	877		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	494	674	720	570	720	540	580	1,990	696	586	630	376
2	504	674	710	570	650	540	580	2,050	718	546	588	394
3	514	674	700	560	650	540	580	2,050	718	525	525	394
4	514	674	696	560	680	540	570	1,990	762	494	483	376
5	514	674	696	560	670	530	560	1,930	762	463	453	414
6	514	740	696	560	650	510	610	1,870	718	463	433	504
7	504	784	*674	550	560	500	652	1,840	674	453	423	546
8	494	1,000	674	550	550	500	718	1,780	652	443	443	525
9	483	1,200	674	540	550	500	784	1,660	630	433	433	525
10	483	*1,220	630	540	550	500	877	1,580	609	433	404	525
11	483	1,200	630	540	550	520	1,080	1,500	588	423	385	514
12	473	1,180	630	540	550	540	1,300	1,520	567	423	394	483
13	494	1,150	620	540	530	580	1,520	1,550	567	423	376	453
14	630	1,100	620	540	520	580	1,720	1,550	609	414	358	443
15	740	1,050	610	540	520	570	1,990	1,500	652	404	350	463
16	740	1,050	610	540	520	570	*2,110	1,420	718	385	350	463
17	718	1,020	600	540	520	570	2,140	1,350	718	376	350	443
18	718	1,020	600	550	520	570	2,210	1,280	740	367	342	433
19	740	925	590	*560	520	590	2,290	1,180	830	394	324	414
20	784	901	580	560	520	550	2,330	1,120	830	414	324	443
21	830	877	580	580	530	550	2,330	1,050	784	394	324	494
22	853	853	570	580	530	550	2,330	1,020	740	385	333	546
23	853	830	570	580	540	550	2,290	950	696	367	324	546
24	830	807	560	580	530	550	2,250	877	696	394	316	514
25	807	762	560	580	530	580	2,330	807	652	433	308	483
26	762	784	560	590	530	610	2,450	762	609	433	308	483
27	740	784	570	690	560	610	2,570	740	588	504	300	546
28	718	740	590	760	560	600	2,530	696	567	588	308	609
29	696	730	600	800	*560	600	2,330	674	609	674	316	609
30	674	720	590	800	-	580	2,110	652	609	696	324	609
31	652	-	580	800	-	580	-	630	-	674	333	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	19,953	853	473	644	0.915	1.05
November	26,797	1,220	674	893	1.27	1.42
December	19,290	720	560	622	.884	1.02
Calendar year 1943	392,314	3,910	440	1,075	1.53	20.73
January	18,350	800	540	592	.841	.97
February	16,370	720	520	564	.801	.86
March	17,200	610	500	555	.788	.91
April	48,721	2,570	560	1,624	2.31	2.57
May	41,568	2,050	630	1,341	1.90	2.20
June	20,308	830	567	677	.962	1.07
July	14,406	696	367	465	.661	.76
August	11,862	630	300	383	.544	.63
September	14,570	609	376	486	.690	.77
Water year 1943-44	269,395	2,570	300	736	1.05	14.23

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 29 to Dec. 3, Dec. 12 to Apr. 6 (no gage-height record Dec. 13 to Jan. 18; discharge computed on the basis of records for stations at Germfask and near Manistique). Shifting-control method used Apr. 10 to May 5.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Manistique River near Manistique, Mich.

Location.- Water-stage recorder, lat. 46°01'50", long. 86°09'40", in SE¼ sec. 15, T. 42 N., R. 15 W., 1 mile downstream from West Branch and 6 miles northeast of Manistique.

Drainage area.- 1,100 square miles.

Records available.- March 1938 to September 1944.

Extremes.- Maximum discharge during year, 5,000 second-feet Apr. 28 (gage height, 9.43 feet); minimum, 448 second-feet Aug. 27 (gage height, 1.47 feet).
1938-44: Maximum discharge observed, 9,720 second-feet Apr. 1, 1938 (gage height, 12.70 feet, site and datum then in use); minimum, 363 second-feet Sept. 13, 14, 1942; minimum gage height, 1.14 feet Sept. 13, 1942.

Remarks.- Records excellent except those for periods of partly estimated gage height records, which are good, and those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1-22		Oct. 23 to Sept. 30			
2.2	615	1.5	463	6.0	2,370
3.1	930	2.4	750	7.6	3,400
3.9	1,250	4.0	1,370	9.4	5,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	668	1,090	1,130	790	1,080	800	1,050	4,060	1,050	970	980	555
2	668	1,090	1,100	790	930	800	1,080	3,880	1,170	910	900	602
3	685	1,090	1,090	790	900	800	1,080	3,800	1,210	855	820	634
4	685	1,090	1,070	760	980	800	1,080	3,720	1,250	802	760	618
5	685	1,090	1,050	760	990	800	1,080	3,560	1,290	768	720	618
6	668	1,130	1,040	760	930	730	1,080	3,400	1,250	f750	680	700
7	668	1,250	*1,030	760	610	730	1,110	3,260	1,210	716	650	768
8	668	1,470	1,010	740	800	730	1,200	3,190	1,170	700	666	785
9	650	*1,770	990	740	800	710	1,300	2,980	1,090	683	650	785
10	632	1,920	960	740	800	710	1,470	2,850	1,040	f683	634	802
11	632	1,970	940	740	790	730	1,670	2,670	990	f666	f602	785
12	632	1,970	930	740	780	800	1,820	2,610	960	f650	602	768
13	650	1,970	920	740	780	860	2,070	2,610	940	650	586	733
14	772	1,920	910	740	760	890	2,320	2,670	970	650	570	700
15	f930	1,820	900	740	740	890	2,610	2,610	1,050	650	540	716
16	f990	1,720	890	740	740	890	*2,850	2,490	1,370	634	540	716
17	f1,010	1,670	880	720	710	930	2,980	2,370	1,470	602	540	716
18	1,010	1,670	880	*730	730	930	3,120	2,220	1,470	586	524	683
19	1,050	1,670	870	740	730	890	3,260	2,070	1,570	602	508	666
20	1,090	1,570	860	740	710	860	3,400	1,920	1,570	634	493	683
21	1,170	1,470	860	760	710	860	3,640	1,770	1,520	618	493	716
22	1,250	1,420	850	760	740	890	3,720	1,720	f1,370	602	493	785
23	1,330	1,370	840	760	740	890	3,860	1,620	1,290	586	493	f820
24	1,330	1,290	840	780	740	890	3,970	1,470	1,250	602	478	802
25	1,330	1,290	840	780	740	930	4,240	1,370	1,150	634	478	785
26	1,290	1,290	840	780	740	990	4,600	1,290	1,060	670	463	768
27	1,250	1,250	840	860	760	1,050	4,900	1,210	1,000	780	463	838
28	1,210	1,210	870	980	780	1,080	5,000	1,170	960	880	463	950
29	1,170	1,170	870	1,080	*800	1,080	4,800	1,090	990	1,000	478	990
30	1,130	1,140	810	1,110	-	1,050	4,330	1,050	1,010	1,060	478	990
31	1,090	-	790	1,110	-	1,030	-	1,010	-	1,040	508	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	28,993	1,330	632	935	0.850	0.98
November	43,840	1,970	1,090	1,461	1.33	1.48
December	28,700	1,130	790	926	.842	.97
Calendar year 1943	634,567	7,020	632	1,739	1.58	21.44
January	24,760	1,110	720	799	.726	.84
February	23,240	1,080	710	801	.728	.79
March	27,020	1,080	710	872	.793	.91
April	80,710	5,000	1,050	2,690	2.45	2.73
May	73,710	4,060	1,010	2,378	2.16	2.49
June	35,690	1,570	940	1,190	1.08	1.21
July	22,633	1,060	586	730	.664	.77
August	18,253	980	463	589	.535	.62
September	22,477	990	555	749	.681	.76
Water year 1943-44	430,026	5,000	463	1,175	1.07	14.55

* Winter discharge measurement made on this day.
f Computed on basis of partly estimated gage-height record.
Note.- Stage-discharge relation affected by ice Nov. 30 to Apr. 10. No gage-height record Feb. 8-11, June 10-13, 25-29, July 26 to Aug. 6; discharge computed on basis of records for Manistique River near Blaney and West Branch Manistique River near Manistique.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Manistique Lake Outlet at Helmer, Mich.

Location.- Staff gage, lat. 46°16'30", long. 85°42'40", in sec. 20, T. 45 N., R. 11 W., at bridge on State Highway 98, a quarter of a mile downstream from Helmer Creek, half a mile upstream from Manistique Lake, and half a mile northeast of Helmer.

Drainage area.- 15 square miles.

Records available.- August 1942 to September 1944 (discontinued).

Extremes.- Maximum discharge during year, 50 second-feet Apr. 25, 26 (gage height, 2.00 feet); minimum, 2.9 second-feet Aug. 27, 28 (gage height, 0.66 foot).
1942-44: Maximum discharge, 100 second-feet June 21, 1943 (gage height, 2.88 feet, from graph based on gage readings); minimum observed, 1.8 second-feet Sept. 2, 3, 12, 1942 (gage height, 0.64 foot).

Remarks.- Records good except those below 10 second-feet or for periods of ice effect, which are fair. Gage read once daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 4-13)

Oct. 6 to Feb. 17		Oct. 1-5, Feb. 18 to Sept. 30					
0.8	5.1	0.65	2.7	0.9	9.3	1.3	22
.9	7.7	.7	3.9	.95	11	1.4	26
1.0	11	.75	5.1	1.0	12	1.5	29
1.3	20	.8	6.5	1.1	16	2.0	50
1.7	36						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	9.7	19	17	15	14	18	26	19	15	15	5.7
2	7.8	10	19	17	15	*14	17	29	19	14	15	5.9
3	7.0	10	19	17	14	14	17	38	19	14	15	5.9
4	6.5	11	19	16	14	14	17	36	19	14	14	6.2
5	5.9	11	18	16	14	14	17	32	19	13	14	7.3
6	5.9	11	18	16	14	14	17	32	19	12	12	7.6
7	5.6	20	18	16	14	14	16	26	18	12	11	7.6
8	5.6	33	*17	15	14	14	17	27	17	12	8.7	7.6
9	5.4	32	18	15	14	15	19	27	15	11	8.4	7.8
10	5.4	28	18	15	14	15	20	25	14	11.	8.1	7.6
11	5.4	24	18	14	14	16	22	25	14	11	8.1	7.6
12	5.4	20	18	14	14	17	24	25	14	11	8.1	7.6
13	8.9	13	18	14	14	17	25	28	15	11	8.1	6.7
14	13	8.9	17	14	14	17	28	29	15	10	7.3	6.7
15	14	8.9	17	14	14	16	29	29	16	9.0	7.0	6.7
16	12	9.2	17	14	14	16	31	29	17	7.3	7.0	7.0
17	12	9.7	17	14	14	17	35	28	18	6.5	7.3	7.8
18	13	10	16	14	14	17	*38	27	19	6.5	6.5	7.8
19	14	18	16	14	14	17	39	25	19	8.1	6.5	7.8
20	13	19	16	*14	14	16	40	23	19	8.1	6.7	7.6
21	13	19	16	13	14	16	39	22	19	8.1	6.5	7.3
22	14	20	16	13	14	16	38	22	18	8.1	5.7	7.6
23	14	19	16	13	13	16	40	21	18	8.1	4.4	7.6
24	13	19	16	13	13	13	44	19	17	8.1	3.9	a7.5
25	13	19	16	14	13	13	49	19	16	7.6	3.9	a7.5
26	14	19	17	15	13	16	50	19	15	7.3	3.4	a7.5
27	11	19	17	16	13	16	46	18	15	8.1	2.9	a7.5
28	11	19	17	16	13	16	43	18	14	10	2.9	a7.5
29	11	19	17	16	14	16	35	18	14	12	3.2	a7.5
30	11	19	17	16	-	17	29	18	13	15	3.4	a7.5
31	10	-	17	15	-	18	-	19	-	15	4.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	309.2	14	5.4	9.97	0.665	0.77
November	507.4	33	8.9	16.9	1.13	1.26
December	535	19	16	17.3	1.15	1.33
Calendar year 1943	6,871.8	97	4	18.8	1.25	17.04
January	460	17	13	14.8	.987	1.14
February	402	15	13	13.9	.927	1.00
March	481	18	13	15.5	1.03	1.19
April	899	50	16	30.0	2.00	2.23
May	779	38	18	25.1	1.67	1.93
June	503	19	13	16.8	1.12	1.25
July	323.9	15	6.5	10.4	.693	.80
August	238.9	15	2.9	7.71	.514	.59
September	217.5	7.8	5.7	7.25	.483	.54
Water year 1943-44	5,655.9	50	2.9	15.5	1.03	14.03

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
Note.- Stage-discharge relation affected by ice Dec. 12 to Jan. 18, Feb. 10-17, Mar. 19, 20.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Fox River at Seney, Mich.

Location.- Staff gage, lat. 46°20'35", long. 85°57'05", in sec. 32, T. 46 N., R. 13 W., at Duluth, South Shore & Atlantic Railroad bridge in Seney, 8 miles upstream from East Branch.

Drainage area.- 107 square miles.

Records available.- May 1942 to September 1944 (discontinued).

Extremes.- Maximum discharge during year, 456 second-feet Apr. 25 (gage height, 4.04 feet); maximum gage height, 4.32 feet Dec. 15-16 (during period of ice effect) from graph based on gage readings; minimum daily, 121 second-feet Feb. 25, Mar. 5, 6; minimum gage height, 2.36 feet Aug. 25-27.

1942-44: Maximum discharge, 740 second-feet June 23, 1943 (gage height, 4.70 feet, from graph based on gage readings); minimum daily, 75 second-feet Jan. 21, 1943; minimum gage height observed, 2.24 feet Aug. 12-14, Sept. 7, 1942.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read once daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-13, Apr. 26 to Sept. 30		Oct. 14 to Apr. 25			
2.3	115	2.4	112	3.6	305
3.4	261	2.7	148	3.9	400
3.7	333	3.1	209	4.1	480
4.0	440				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	158	151	135	138	130	127	271	186	144	186	148
2	152	156	148	140	138	*130	124	283	192	140	172	143
3	153	155	148	140	138	129	124	281	218	137	163	135
4	150	156	149	140	138	127	124	271	224	135	156	137
5	148	162	148	140	138	121	125	261	212	135	150	146
6	146	168	148	140	138	121	125	261	198	134	146	163
7	145	189	147	140	137	122	131	261	192	132	140	161
8	145	218	144	135	136	122	133	253	179	134	137	153
9	144	236	*144	135	135	129	135	231	172	136	135	148
10	145	222	142	135	135	135	147	224	166	135	136	148
11	148	209	140	135	135	139	155	231	162	134	140	145
12	145	200	138	130	135	139	162	238	160	136	135	143
13	158	195	137	130	135	135	180	245	161	136	130	143
14	182	188	135	130	130	135	199	231	172	132	127	145
15	183	183	135	130	130	133	209	224	172	130	127	141
16	171	178	135	130	130	130	222	218	186	130	128	140
17	166	176	135	130	130	130	*245	212	186	128	128	137
18	177	171	135	130	130	128	289	198	198	127	125	137
19	188	172	140	130	130	125	316	192	205	134	125	140
20	197	174	140	130	130	123	327	186	186	132	126	150
21	199	171	135	*130	130	123	311	186	172	127	131	154
22	202	168	135	130	135	123	319	179	172	126	130	154
23	197	165	135	132	139	123	333	172	166	130	127	150
24	199	162	130	134	129	124	396	172	166	145	126	146
25	178	159	130	134	121	131	452	166	160	139	122	146
26	171	162	135	135	134	128	432	166	153	144	122	152
27	170	162	135	148	139	127	372	163	156	205	122	158
28	159	162	135	151	135	125	319	160	165	224	126	158
29	148	161	135	151	133	125	286	157	153	238	125	154
30	156	156	135	148	-	125	271	162	146	218	127	150
31	156	-	135	140	-	129	-	192	-	205	139	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,128	202	144	165	1.54	1.78
November	5,294	236	155	176	1.64	1.84
December	4,314	151	130	139	1.30	1.50
Calendar year 1943	69,486	740	75	190	1.78	24.15
January	4,218	151	130	136	1.27	1.47
February	3,881	139	121	134	1.25	1.35
March	3,966	139	121	128	1.20	1.38
April	7,090	452	124	236	2.21	2.46
May	3,647	283	157	214	2.00	2.31
June	5,336	224	146	178	1.66	1.85
July	4,582	238	126	148	1.38	1.59
August	4,209	186	122	136	1.27	1.46
September	4,425	163	135	148	1.38	1.54
Water year 1943-44	59,090	452	121	161	1.50	20.53

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 3, Jan. 6-23, Feb. 2, 3, 6-8, 11-22, Mar. 6, 7, 21, 22.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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East Branch Fox River near Germfask, Mich.

Location.- Chain gage, lat. 46°16'30", long. 85°50'50", in sec. 19, T. 45 N., R. 12 W., at bridge 1½ miles upstream from mouth and 4 miles east of Germfask.

Drainage area.- 104 square miles.

Records available.- May 1942 to September 1944 (discontinued).

Extremes.- Maximum discharge during year, 657 second-feet Apr. 26 (gage height, 9.75 feet); minimum, 68 second-feet Aug. 27 (gage height, 1.97 feet).
1942-44: Maximum discharge, 797 second-feet Apr. 24, 1943 (gage height, 11.34 feet, from graph based on gage readings); minimum, that of Aug. 27, 1944; minimum gage height, 1.96 feet Aug. 21, 1942.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read once daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 9		Apr. 10 to Sept. 30			
2.8	100	1.9	66	6.0	281
4.6	193	2.8	100	7.0	375
5.9	273	4.6	193	9.7	646

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	155	140	90	110	*110	130	355	135	102	140	94
2	105	155	135	90	125	105	125	355	140	92	112	98
3	105	150	135	90	120	105	120	375	140	86	96	90
4	105	150	130	93	115	100	120	395	145	82	88	92
5	102	150	130	93	110	100	120	395	145	80	84	150
6	102	170	125	93	110	105	125	375	130	78	82	181
7	102	187	122	93	105	105	135	335	120	78	80	199
8	102	229	*122	93	105	105	140	316	112	76	76	217
9	100	247	120	93	105	105	150	289	102	80	76	223
10	100	259	112	90	100	105	160	267	98	80	72	211
11	100	*273	105	93	100	100	175	260	94	76	78	181
12	100	266	108	93	100	105	193	253	92	78	80	150
13	108	259	102	93	100	105	217	253	92	82	74	130
14	150	241	100	93	100	105	235	247	110	80	72	135
15	170	229	98	93	100	105	247	241	120	76	70	140
16	175	223	96	93	100	105	267	235	122	72	72	130
17	175	211	95	93	100	100	298	217	135	70	72	122
18	181	199	95	93	100	100	*375	193	145	70	70	115
19	187	187	97	96	100	100	475	170	150	72	70	110
20	199	181	97	*96	100	100	575	160	150	76	70	118
21	211	175	97	100	100	115	625	150	135	74	74	140
22	217	170	93	100	100	120	615	140	118	72	74	150
23	217	160	88	100	105	120	575	135	108	70	70	145
24	217	155	84	96	105	120	575	125	108	84	70	130
25	205	160	87	100	105	125	625	120	105	98	69	125
26	193	150	87	105	105	140	646	115	96	86	69	130
27	181	145	87	110	110	135	615	108	90	102	68	145
28	170	140	90	120	110	125	535	102	94	130	70	155
29	160	140	90	130	115	120	465	96	105	145	78	155
30	155	140	87	130	-	120	395	94	118	155	76	150
31	150	-	90	120	-	125	-	112	-	150	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,646	217	100	150	1.44	1.66
November	5,656	273	140	189	1.82	2.02
December	3,244	140	84	105	1.01	1.16
Calendar year 1943	61,414	797	75	168	1.62	21.98
January	3,065	130	90	98.9	.951	1.10
February	3,060	125	100	106	1.02	1.09
March	3,435	140	100	111	1.07	1.23
April	10,053	646	120	335	3.22	3.59
May	6,983	395	94	225	2.16	2.50
June	3,554	150	90	118	1.13	1.27
July	2,752	155	70	88.8	.854	.98
August	2,428	140	68	78.3	.753	.87
September	4,311	223	90	144	1.38	1.54
Water year 1943-44	53,187	646	68	145	1.39	19.01

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 28 to Dec. 3, Dec. 15 to Apr. 9.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Duck Creek near Blaney, Mich.

Location.- Water-stage recorder, lat. 46°06'50", long. 86°04'50", in SE¼ sec. 17, T. 43 N., R. 14 W., 3 miles upstream from mouth and 7 miles west of Blaney.

Drainage area.- 92 square miles, including area from which flow is diverted to Duck Creek from Walsh Creek and Marsh Creek (watershed indeterminate because of swamps).

Records available.- March 1938 to September 1944.

Extremes.- Maximum discharge during year, 586 second-feet Apr. 25 (gage height, 7.67 feet); minimum, 7.8 second-feet Aug. 27 (gage height, 1.65 feet).
1938-44: Maximum discharge observed, 1,740 second-feet Apr. 26, 1939 (gage height, 11.70 feet, site and datum then in use); minimum, 6.0 second-feet Aug. 21, 1941 (gage height, 1.52 feet).

Remarks.- Records excellent except those below 40 second-feet, which are good, those for periods of ice effect, which are fair, and those for period of no gage-height record, which are poor. Records include flow from Walsh Creek and Marsh Creek, which originates upstream from line between R. 14 W. and R. 15 W. and is diverted to Duck Creek through drainage canal about 3 miles above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	35	58	26	44	30	55	406	50	28	24	18
2	12	36	54	27	39	29	61	430	50	27	22	16
3	11	34	51	27	39	31	60	406	54	26	20	13
4	10	35	48	28	39	32	59	370	54	24	18	13
5	10	40	44	28	39	29	58	336	51	23	16	18
6	10	44	42	28	33	26	59	314	48	22	15	18
7	10	50	*39	28	31	25	76	281	46	21	14	18
8	10	78	37	26	33	24	94	264	44	20	14	16
9	9.8	100	35	26	33	27	120	254	41	20	13	14
10	10	*103	34	25	32	27	150	232	40	19	12	14
11	9.8	101	33	24	31	30	190	220	37	18	15	15
12	10	101	32	23	31	39	237	226	35	17	14	14
13	14	97	32	23	30	41	281	237	35	16	12	14
14	36	102	31	23	28	41	314	226	42	16	12	18
15	33	98	30	24	29	41	*394	220	45	15	11	17
16	28	98	30	24	29	41	490	210	49	14	12	16
17	26	97	29	24	27	41	502	193	48	13	12	16
18	30	96	29	23	28	41	538	171	50	13	10	15
19	34	95	29	*24	26	37	538	149	50	14	10	14
20	40	92	29	26	25	36	526	137	50	14	9.8	17
21	41	89	30	27	27	37	514	124	48	13	10	21
22	40	86	30	27	28	39	502	111	45	13	10	22
23	38	85	27	27	29	38	502	101	43	13	9.0	18
24	36	83	27	27	30	41	526	91	41	13	8.8	17
25	34	80	28	28	29	46	574	83	39	14	8.2	16
26	33	76	28	34	30	53	574	75	37	15	8.2	19
27	32	75	28	49	34	58	550	68	35	17	8.0	28
28	32	72	28	58	34	58	514	62	33	20	9.2	32
29	30	67	28	63	*32	56	478	55	32	22	12	28
30	30	63	26	62	-	51	430	50	30	24	10	26
31	30	-	26	56	-	51	-	47	-	25	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	741.6	41	9.8	23.9		
November	2,308	103	34	76.9		
December	1,052	58	26	33.9		
Calendar year 1943	46,487.6	750	9.8	127		
January	965	63	23	31.1		
February	919	44	25	31.7		
March	1,196	58	24	38.6		
April	9,966	574	55	332		
May	6,149	430	47	198		
June	1,302	54	30	43.4		
July	569	28	13	18.4		
August	392.2	24	8.0	12.7		
September	541	32	13	18.0		
Water year 1943-44	26,100.8	574	8.0	71.3		

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 16-18, 23-25, Nov. 28 to Apr. 11. No gage-height record June 15 to Aug. 6; discharge computed on basis of records for stations on nearby streams and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Branch Manistique River near Manistique, Mich.

Location.- Water-stage recorder, lat. 46°05'20", long. 86°09'40", in SE¼ sec. 27, T. 43 N., R. 15 W., 300 feet downstream from Stutts Creek and 10 miles northeast of Manistique.

Drainage area.- 322 square miles.

Records available.- April 1938 to September 1944.

Extremes.- Maximum discharge during year, 2,330 second-feet Apr. 27 (gage height, 9.27 feet); minimum, 112 second-feet Aug. 27; minimum gage height, 1.98 feet Oct. 10-13.

1938-44: Maximum discharge observed, 5,300 second-feet Apr. 29, 1939 (gage height, 12.9 feet); minimum observed, 100 second-feet Aug. 30, 1938.

Remarks.- Records excellent except those for periods of ice effect, which are fair.

Rating tables, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 27		Apr. 28 to Sept. 30	
1.9	123	2.0	107
2.4	205	2.5	186
3.2	375	3.1	301
3.9	550	4.2	570
7.8	1,720	7.1	1,440
9.1	2,240	9.0	2,200

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	330	330	195	230	230	270	1,520	346	270	270	145
2	143	319	320	195	220	215	270	1,410	382	250	260	166
3	141	319	305	195	220	230	270	1,350	420	239	235	172
4	141	319	295	195	220	230	260	1,260	445	226	213	167
5	141	330	285	200	210	230	275	1,170	445	215	195	169
6	140	341	*290	200	200	205	290	1,110	445	202	183	178
7	138	364	285	190	195	215	319	1,050	445	195	172	186
8	138	425	285	195	190	230	341	990	408	188	164	195
9	138	*475	275	195	190	220	364	930	382	181	158	202
10	135	500	275	200	190	230	375	870	358	176	155	208
11	136	525	265	200	190	235	400	840	334	172	158	206
12	135	550	260	195	190	255	462	840	312	171	156	200
13	156	565	250	195	190	265	525	840	301	171	153	199
14	191	538	245	195	190	265	610	840	312	172	147	202
15	216	538	240	195	190	270	*700	810	346	167	140	200
16	238	525	230	195	190	270	790	780	458	159	142	199
17	250	525	220	*185	190	270	880	720	445	153	139	195
18	265	525	220	195	190	270	970	660	458	150	137	186
19	276	488	210	195	190	255	1,090	600	470	159	134	179
20	297	450	210	200	190	250	1,240	558	470	158	131	184
21	319	438	205	205	195	255	1,360	532	445	155	130	190
22	352	425	200	205	200	265	1,450	508	420	148	128	211
23	375	412	200	210	200	255	1,480	482	382	145	125	224
24	388	388	200	210	205	265	1,540	458	382	153	122	228
25	400	400	205	205	210	270	1,690	432	370	158	119	224
26	388	400	205	205	210	280	1,920	395	358	172	114	222
27	375	375	200	205	220	270	2,240	382	334	199	113	250
28	364	364	200	210	*220	265	2,160	358	323	222	116	270
29	352	352	195	220	220	265	1,920	334	301	260	118	280
30	330	340	195	220	-	270	1,720	312	280	280	114	290
31	319	-	195	220	-	270	-	301	-	280	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,525	400	135	243	0.755	0.87
November	12,845	565	319	428	1.33	1.48
December	7,495	330	195	242	.752	.87
Calendar year 1943	197,600	3,590	135	541	1.68	22.82
January	6,225	220	185	201	.624	.72
February	5,845	230	190	202	.627	.68
March	7,770	280	205	251	.780	.90
April	28,181	2,240	260	939	2.92	3.25
May	23,642	1,520	301	763	2.37	2.73
June	11,577	470	280	386	1.20	1.34
July	5,946	280	145	192	.596	.69
August	4,771	270	113	154	.478	.55
September	6,127	290	145	204	.634	.71
Water year 1943-44	127,949	2,240	113	350	1.09	14.79

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 30 to Apr. 6.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Indian River near Manistique, Mich.

Location.- Water-stage recorder, lat. 45°59'30", long. 86°17'15", in NE¼ sec. 34, T. 42 N., R. 16 W., above Indian Lake Outlet, 2 miles northwest of Manistique. Auxiliary staff gage installed above dam 1½ miles downstream Jan. 18, 1944.

Drainage area.- 302 square miles.

Records available.- March 1938 to September 1944.

Extremes.- Maximum discharge during year, 596 second-feet May 4; maximum gage height, 5.00 feet June 27; minimum daily, 210 second-feet Aug. 27 (backwater from needles in gate section); minimum gage height, 3.37 feet Feb. 23.

1938-44: Maximum discharge, 1,550 second-feet June 24, 1943 (gage height, 7.79 feet), from rating curve extended above 660 second-feet on basis of computation of flow over dam at gage height 7.79 feet; minimum observed, 106 second-feet Aug. 6, 7, 1939; minimum gage height, 3.30 feet Mar. 25, 1940.

Remarks.- Records excellent Jan. 18 to Sept. 30, others good, except those for periods of no gage-height record, which are fair. Indian Lake regulated by needles in gate section of rock-filled timber dam 1½ miles below gage; discharge after Jan. 18 computed using fall as determined by auxiliary staff gage as a factor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	233	422	440	341	317	307	322	506	378	466	263	220
2	233	413	440	341	320	307	311	531	254	460	263	221
3	233	413	431	332	320	309	311	552	258	445	266	227
4	233	413	440	332	317	309	311	552	269	438	281	227
5	233	413	431	332	317	312	311	547	272	427	260	233
6	242	413	431	332	317	312	311	547	266	421	260	231
7	242	413	431	323	329	322	314	568	272	411	260	231
8	242	440	422	323	332	328	314	547	275	411	255	229
9	242	449	431	323	332	312	322	547	272	408	251	231
10	242	458	431	323	320	325	322	542	266	399	251	237
11	251	458	422	323	326	307	332	542	266	386	253	237
12	251	476	413	323	332	314	332	542	262	345	241	235
13	260	476	404	320	330	314	339	563	269	316	239	231
14	368	476	395	320	319	317	352	547	279	318	242	232
15	404	476	386	320	316	314	349	547	288	287	242	236
16	395	476	377	320	316	317	355	542	307	260	237	236
17	404	476	377	320	316	317	369	542	313	259	231	236
18	413	476	368	320	306	314	369	526	333	259	227	248
19	413	476	368	317	300	317	382	531	342	252	227	243
20	404	476	368	317	317	304	392	531	359	244	234	253
21	404	476	368	317	317	307	388	521	366	248	223	257
22	413	476	368	307	307	307	392	521	359	246	223	254
23	413	458	368	307	304	301	385	510	430	256	223	247
24	413	458	359	310	294	304	427	499	503	256	221	254
25	413	458	359	310	302	304	453	490	500	256	226	260
26	413	458	350	317	309	304	464	485	479	253	224	265
27	413	458	350	317	314	311	485	475	482	263	210	266
28	413	449	350	323	309	314	495	473	484	260	221	263
29	422	449	350	320	307	320	495	478	479	270	221	269
30	413	440	350	317	-	321	495	468	464	273	221	269
31	404	-	341	320	-	322	-	458	-	260	214	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	10,472	422	233	338	-	-
November	13,569	476	413	452	-	-
December	12,119	440	341	391	-	-
Calendar year 1943	183,551	1,400	233	503	1.67	22.60
January	9,967	341	307	322	-	-
February	9,162	332	294	316	-	-
March	9,693	328	301	313	-	-
April	11,199	495	311	373	-	-
May	16,230	568	458	524	-	-
June	10,346	503	254	345	-	-
July	10,053	466	244	324	-	-
August	7,410	281	210	239	-	-
September	7,278	269	220	243	-	-
Water year 1943-44	127,498	568	210	348	1.15	15.70

Note.- No gage-height record Jan. 11-17, Aug. 6-8; discharge computed on basis of recorded range in stage and records for Manistique River near Manistique.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brule River near Florence, Wis.

Location.- Water-stage recorder, lat. 45°57', long. 88°16', in sec. 11, T. 41 N., R. 32 W. Michigan meridian, at county highway bridge, 3½ miles north of Florence, 1 mile above mouth of Paint River, and 6 miles above confluence with Michigamme River. Prior to Aug. 29, 1944, wire-weight gage on downstream side of highway bridge.

Drainage area.- 380 square miles (revised).

Records available.- January 1914 to February 1916 and June to September 1944.

Extremes.- Maximum discharge observed during period, 1,060 second-feet June 6 (gage height, 3.43 feet), by current-meter measurement; minimum, 194 second-feet Aug. 14, 15, 26, 27 (gage height, 1.87 feet), from graph based on gage readings.
1914-16, June to September 1944; Maximum discharge observed, 1,730 second-feet May 1, 3, 1914 (gage height, 4.6 feet); minimum observed, 185 second-feet Feb. 4, 1915, by current-meter measurement.

Remarks.- Records good. Gage read twice daily June 20 to Aug. 28. Flow not adjusted for ground water pumped from mines at Iron River.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	292	233	300
2									-	280	227	268
3									-	258	218	247
4									-	258	218	244
5									-	254	218	240
6									e1,060	250	218	233
7									-	247	214	230
8									-	244	214	224
9									-	244	218	218
10									-	247	214	240
11									-	250	211	264
12									-	272	205	268
13									-	268	197	250
14									-	254	194	244
15									-	240	194	240
16									-	233	254	240
17									-	230	230	236
18									-	227	211	233
19									-	230	202	233
20									423	233	205	330
21									378	230	205	340
22									340	218	205	296
23									373	214	197	268
24									460	221	197	258
25									439	221	199	244
26									428	236	197	254
27									402	258	194	407
28									358	250	214	460
29									330	272	230	392
30									304	261	224	330
31									-	244	292	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October						
November						
December						
Calendar year	-------	-------	-------	-------	-------	-------
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April	-	-	-	-	-	-
May	-	-	-	-	-	-
June 20-30	4,235	460	304	385	1.01	0.41
July	7,636	292	214	246	.647	.75
August	6,649	292	194	214	.563	.65
September	8,231	460	218	274	.721	.81
Water year	-	-	-	-	-	-

e Discharge measurement.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Menominee River at Twin Falls, near Iron Mountain, Mich.

Location.- Lat. 45°52'20", long. 88°04'10", in sec. 12, T. 40 N., R. 31 W., at power plant of Wisconsin Michigan Power Co., 3 miles upstream from Pine River and 3½ miles north of city of Iron Mountain.

Drainage area.- 1,790 square miles.

Records available.- January 1914 to September 1944.

Average discharge.- 30 years, 1,794 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 6,090 second-feet June 7; minimum daily, 785 second-feet Sept. 19.
1914-44: Maximum daily discharge, 16,700 second-feet Apr. 23, 24, 1916; minimum daily, 154 second-feet Aug. 9, 1925.

Remarks.- Records good. Discharge determined from power-house records. Flow regulated by power plant at which station is located and also by plants on Brule and Michigamme Rivers and by Way Reservoir on Michigamme River.

Cooperation.- Records of daily discharge computed by Wisconsin Michigan Power Co., on basis of load-discharge rating of hydroelectric units as developed by Geological Survey in 1932-33 and taintor gate ratings based on theoretical formulae. Eleven discharge measurements were made during the year, four of which were on June 9 and 10 when about half of the flow passed through the taintor gates.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,320	1,220	1,250	995	1,400	1,240	1,690	2,010	2,340	2,530	1,340	1,230
2	1,180	1,200	1,290	918	1,400	1,210	1,480	2,320	2,410	2,060	1,280	1,230
3	1,200	1,360	1,290	1,200	1,480	1,270	1,660	2,340	2,570	1,570	1,220	1,020
4	1,300	1,390	1,330	1,340	1,370	1,320	1,540	2,500	2,550	1,310	1,130	1,020
5	1,300	1,320	1,280	1,310	1,200	1,030	1,480	2,510	2,970	1,350	999	1,250
6	1,240	1,410	1,300	1,240	1,140	1,170	1,290	2,420	5,250	1,420	926	1,230
7	1,280	1,300	1,320	1,260	1,140	1,230	1,140	2,400	6,090	1,930	1,150	1,230
8	1,340	1,950	1,330	1,100	1,160	1,190	1,320	2,370	5,810	1,860	1,270	1,050
9	1,260	2,560	1,330	991	1,140	1,140	1,600	2,750	5,440	1,280	1,220	1,030
10	1,110	2,440	1,360	1,200	1,420	1,180	1,680	2,410	5,020	1,500	1,180	1,030
11	1,180	2,180	1,350	1,190	1,140	1,070	1,920	2,590	4,160	1,590	1,190	1,080
12	1,250	1,800	1,180	1,210	1,100	1,000	1,710	3,620	4,220	1,460	1,100	1,200
13	1,330	1,470	1,220	1,140	1,010	1,250	1,560	4,470	3,860	1,270	978	1,150
14	1,470	1,240	1,290	1,220	1,200	1,330	1,680	5,580	3,510	1,220	1,080	1,140
15	1,450	1,250	1,260	1,120	1,140	1,290	1,610	5,360	3,210	1,250	1,140	1,150
16	1,420	1,450	1,240	989	1,150	1,320	1,340	4,610	3,100	1,050	1,170	866
17	1,150	1,310	1,300	1,130	1,150	1,290	1,380	4,040	2,830	1,240	1,450	977
18	1,240	1,230	1,220	1,260	1,170	1,100	1,300	3,610	2,430	1,300	1,460	1,050
19	1,230	1,240	1,060	1,120	1,100	1,090	1,300	3,890	2,390	1,350	954	785
20	1,250	1,210	1,260	1,110	988	1,290	1,210	3,770	2,500	1,330	1,080	1,180
21	1,240	1,160	1,290	1,300	1,100	1,290	1,250	2,460	2,530	1,460	1,180	1,700
22	1,340	1,260	1,350	1,260	1,170	1,320	1,130	2,430	2,480	1,140	1,140	1,320
23	1,290	1,290	1,330	1,060	1,220	1,360	1,590	2,690	2,460	1,010	1,080	1,200
24	1,120	1,310	1,280	1,290	1,230	1,700	2,470	3,080	2,540	1,240	1,060	1,010
25	1,290	1,180	1,100	1,450	1,330	1,390	2,900	3,270	2,540	1,150	1,030	1,260
26	1,310	1,190	939	1,450	1,250	1,210	3,450	2,820	2,430	1,330	1,040	1,290
27	1,310	1,220	1,220	1,620	1,160	1,300	3,010	2,530	2,480	1,600	979	1,490
28	1,280	1,080	1,150	1,570	1,240	1,590	2,560	2,360	2,490	1,490	1,070	1,640
29	1,230	1,240	1,090	1,340	1,240	1,900	2,420	2,210	2,480	1,300	1,100	1,570
30	1,190	1,250	1,110	1,040	-	2,380	2,430	2,090	2,520	963	1,110	1,360
31	1,120	-	1,090	1,340	-	2,350	-	2,100	-	1,160	1,150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	39,220	1,470	1,110	1,265	0.707	0.82
November	42,710	2,560	1,080	1,424	.796	.89
December	38,409	1,360	939	1,239	.692	.80
Calendar year 1943	873,989	10,100	939	2,394	1.34	18.15
January	37,763	1,620	918	1,218	.680	.78
February	34,938	1,480	988	1,205	.673	.73
March	41,800	2,380	1,000	1,348	.753	.87
April	53,100	3,450	1,130	1,770	.989	1.10
May	93,610	5,580	2,010	3,020	1.69	1.95
June	97,610	6,090	2,340	3,254	1.82	2.03
July	43,713	2,530	963	1,410	.788	.91
August	35,256	1,460	926	1,137	.635	.73
September	35,738	1,700	785	1,191	.665	.74
Water year 1943-44	593,867	6,090	785	1,623	.907	12.35

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Paint River at Crystal Falls, Mich.

Location.- Water-stage recorder, lat. 46°07', long. 88°20', in sec. 20, T. 43 N., R. 32 W., 150 feet below municipal power plant at Crystal Falls and 13 miles upstream from Brule River. Datum of gage, 1,306.1 feet above mean sea level (Wisconsin Michigan Power Co. bench mark).

Drainage area.- 616 square miles.

Records available.- August to September 1944.

Extremes (regulated).- Maximum discharge during period, 742 second-feet Sept. 27 (gage height, 3.08 feet); minimum, 36 second-feet Sept. 7 (gage height, 1.32 feet) (power plant shut down for measurement of leakage); minimum daily, 176 second-feet Aug. 27.

Remarks.- Records excellent. Diurnal fluctuation caused by power plant immediately above station.

Discharge, in second-feet, 1944

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	299	11	-	254	21	-	370
2	-	281	12	-	265	22	-	354
3	-	244	13	-	260	23	-	336
4	-	246	14	-	234	24	177	304
5	-	242	15	-	235	25	181	298
6	-	231	16	-	232	26	183	284
7	-	220	17	-	230	27	176	378
8	-	227	18	-	224	28	192	520
9	-	210	19	-	236	29	212	539
10	-	225	20	-	289	30	200	511
						31	281	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 24-31...	1,602	281	176	200	0.325	0.10
September.....	8,778	539	210	283	.459	.53

Michigamme River near Crystal Falls, Mich.

Location.- Water-stage recorder, lat. 46°07', long. 88°13', in sec. 20, T. 43 N., R. 31 W., 5 miles downstream from Way Dam, 6 miles east of Crystal Falls, and 16 miles upstream from mouth.

Drainage area.- 670 square miles.

Records available.- August to September 1944.

Extremes (regulated).- 1944: Maximum discharge during period, 1,200 second-feet Aug. 23 (gage height, 5.04 feet); minimum, 97 second-feet Sept. 30 (gage height, 1.98 feet).

Remarks.- Records excellent. Flow regulated by Way Reservoir.

Discharge, in second-feet, 1944

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	563	11	-	511	21	651	601
2	-	389	12	-	695	22	646	473
3	-	386	13	-	524	23	359	346
4	-	295	14	-	362	24	492	346
5	-	373	15	-	278	25	558	471
6	-	601	16	-	168	26	538	579
7	-	695	17	-	166	27	538	477
8	-	526	18	-	413	28	623	357
9	-	330	19	-	670	29	720	251
10	-	330	20	538	646	30	720	99
						31	720	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 20-31...	7,103	720	359	592	-	-
September.....	12,921	695	99	431	-	-

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pine River at Pine River power plant, near Florence, Wis.

Location.- Lat. 45°49'40", long. 88°14'55", in sec. 28, T. 39 N., R. 18 E., at power plant of Wisconsin Michigan Power Co., 4 miles downstream from Popple River and 6½ miles south of Florence.

Drainage area.- 543 square miles.

Records available.- October 1923 to September 1944. January 1914 to September 1923 at site 4 miles upstream (drainage area, 511 square miles).

Average discharge.- 21 years (1923-44), 440 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 1,460 second-feet May 15; minimum daily, 28 second-feet Aug. 6.
1923-44: Maximum daily discharge, 4,380 second-feet Apr. 9, 1929; no flow at times in 1924, 1926, 1927, 1930, 1931, 1933, 1940.

Remarks.- Records good except those for high stages, which are fair. Discharge determined from power-plant records. Flow regulated by power plant at station, but pondage is small and monthly discharge is very nearly natural flow.

Cooperation.- Records of daily discharge computed by Wisconsin Michigan Power Co. on basis of load-discharge rating of hydroelectric units as developed by Geological Survey and computed flow through gates. Rating of units checked within 3 percent by two discharge measurements made in September 1944.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	381	387	273	132	239	208	208	612	520	312	199	312
2	260	324	344	182	208	216	171	819	589	312	131	308
3	172	328	241	189	293	205	208	964	851	312	106	155
4	312	343	296	158	208	181	208	1,160	989	208	173	143
5	312	328	266	188	208	49	208	1,220	1,110	273	124	262
6	208	323	284	150	182	218	208	1,100	1,160	312	28	182
7	312	377	204	182	195	195	334	1,030	1,090	216	202	194
8	233	670	276	182	195	186	389	909	1,040	206	96	150
9	208	864	285	74	208	188	364	864	936	52	95	104
10	217	864	207	200	215	170	379	794	851	312	145	112
11	284	794	187	202	197	105	456	685	706	182	136	221
12	237	724	149	186	189	156	332	1,010	611	195	85	182
13	208	624	251	185	130	188	444	1,260	611	208	70	208
14	356	554	101	143	195	208	392	1,400	631	208	124	208
15	409	533	154	208	177	189	373	1,460	651	203	165	208
16	406	437	198	74	166	165	299	1,400	611	141	150	198
17	354	429	105	187	173	189	235	1,190	598	208	102	150
18	322	452	203	169	147	184	327	1,000	511	195	125	208
19	331	451	125	148	192	182	376	904	624	79	84	208
20	282	425	195	194	111	182	351	884	624	195	138	208
21	296	343	195	195	173	194	349	744	624	144	143	312
22	284	384	192	187	179	182	336	744	624	129	117	312
23	315	303	164	124	177	182	419	704	624	44	102	312
24	364	257	134	218	168	186	852	624	624	199	100	219
25	409	312	134	186	186	208	1,220	624	607	136	99	309
26	329	428	118	208	169	299	1,150	624	617	204	74	200
27	284	312	186	312	91	192	949	624	593	186	52	290
28	343	217	147	299	187	193	719	624	583	195	116	546
29	318	215	181	312	208	222	624	624	394	208	104	544
30	214	216	132	239	-	208	624	559	342	189	152	462
31	312	-	174	312	-	189	-	499	-	208	208	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	9,272	409	172	299	0.551	0.64
November	13,218	864	215	441	.812	.91
December	6,101	344	101	197	.363	.42
Calendar year 1943	190,502	2,410	101	522	.961	13.07
January	5,925	312	74	191	.352	.41
February	5,366	293	91	185	.341	.37
March	5,819	299	49	188	.346	.40
April	13,504	1,220	171	450	.829	.92
May	27,659	1,460	499	892	1.64	1.89
June	20,946	1,160	342	698	1.29	1.44
July	6,171	312	44	199	.366	.42
August	3,745	208	28	121	.223	.26
September	7,427	546	104	248	.457	.51
Water year 1943-44	125,153	1,460	28	342	.630	8.59

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pike River at Amberg, Wis.

Location.- Staff gage, lat. 45°29'50", long. 87°59'40", in sec. 21, T. 35 N., R. 20 E., 500 feet upstream from Chicago, Milwaukee, St. Paul & Pacific Railroad bridge, a quarter of a mile south of Amberg and 1¼ miles downstream from North Branch.

Drainage area.- 250 square miles.

Records available.- February 1914 to September 1944.

Average discharge.- 30 years, 232 second-feet.

Extremes.- Maximum discharge observed during year, 655 second-feet Apr. 25, 26, May 14 (gage height, 3.6 feet); minimum observed, 80 second-feet Aug. 13-15 (gage height, 1.55 feet).

1914-44: Maximum discharge observed, 2,730 second-feet Apr. 10, 1922 (gage height, 7.68 feet, site and datum then in use), from rating curve extended above 1,100 second-feet; minimum observed, 26 second-feet Dec. 27, 1925 (gage height, 1.30 feet, site and datum then in use).

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read once daily.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.6	86	2.5	289
1.8	114	3.0	449
2.0	153	3.5	620
2.2	204		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	165	177	160	110	153	142	153	289	294	153	123	153
2	165	177	165	110	145	142	123	350	294	142	114	132
3	153	177	165	109	139	140	99	366	320	132	106	132
4	165	177	165	108	133	137	142	449	320	123	99	123
5	165	190	165	107	128	132	106	449	294	142	99	114
6	165	190	165	106	123	130	123	398	289	123	99	106
7	165	190	165	105	122	127	218	350	260	114	92	106
8	153	294	165	105	120	125	246	320	231	106	92	106
9	142	449	142	105	120	122	246	320	218	106	92	99
10	142	432	135	105	120	119	190	335	218	106	92	106
11	142	366	115	105	119	117	218	320	204	106	86	114
12	165	335	105	106	118	115	190	415	204	114	86	123
13	177	289	102	106	117	114	190	585	231	114	80	123
14	190	320	100	108	117	115	190	655	335	106	80	123
15	231	350	100	110	116	115	177	585	320	106	80	123
16	218	289	100	113	116	112	165	516	289	99	106	123
17	204	350	102	118	114	106	165	415	231	99	106	114
18	190	320	106	120	113	106	165	350	274	99	106	106
19	177	218	108	122	*113	106	165	294	398	99	99	106
20	177	204	109	124	113	120	165	294	350	99	92	114
21	165	204	111	126	113	122	165	a292	294	92	92	142
22	190	190	110	128	113	126	165	289	246	92	92	132
23	190	160	110	*129	116	130	a340	289	260	92	99	123
24	246	160	110	128	118	134	516	260	289	99	86	114
25	190	160	110	128	122	138	655	246	289	92	86	114
26	177	150	110	140	127	160	655	246	260	99	86	106
27	177	*122	110	180	135	165	550	231	231	106	86	114
28	177	117	110	185	138	165	432	218	204	153	92	132
29	165	115	110	185	140	153	350	204	177	153	99	142
30	165	150	110	175	-	106	350	218	165	142	92	132
31	a171	-	110	165	-	142	-	260	-	132	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,464	246	142	176	0.704	0.81
November	7,022	449	115	234	.936	1.04
December	3,850	165	100	124	.496	.57
Calendar year 1943	92,098	800	100	252	1.01	13.69
January	3,871	185	105	125	.500	.58
February	3,581	153	113	123	.492	.53
March	3,983	165	106	128	.512	.59
April	7,614	655	99	254	1.02	1.14
May	10,808	655	204	349	1.40	1.61
June	7,989	398	165	266	1.06	1.18
July	3,540	153	92	114	.456	.53
August	2,931	123	80	94.5	.378	.44
September	3,597	153	99	120	.480	.54
Water year 1943-44	64,250	655	80	176	.704	9.56

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Nov. 23 to Dec. 1, Dec. 10 to Jan. 31, Feb. 2-5, 7-29, Mar. 2-4, 6-16, 20-26.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Oconto River near Gillett, Wis.

Location.- Water-stage recorder, lat. 44°52', long. 88°18', in sec. 34, T. 28 N., R. 18 E., at highway bridge, 2 miles upstream from Christy Brook and 2½ miles south of Gillett.

Drainage area.- 678 square miles.

Records available.- June 1906 to March 1909, January 1914 to September 1944.

Average discharge.- 31 years (1908, 1914-44), 606 second-feet.

Extremes.- Maximum discharge during year, 1,200 second-feet June 18 (gage height, 2.65 feet); minimum, 168 second-feet Dec. 11 (gage height, 0.48 foot), flow retarded by anchor ice above station.

1906-9, 1914-44: Maximum discharge observed, 6,470 second-feet Apr. 11, 1922, caused by failure of dam at Pulcifer, 4 miles upstream (gage height, 9.1 feet); minimum, 93 second-feet Nov. 26, 1941 (gage height, 0.13 foot); flow retarded by anchor ice above station.

Remarks.- Records excellent except those for periods of ice effect, which are fair.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 2		Apr. 3 to Sept. 30			
0.9	300	0.7	240	1.9	775
1.2	423	1.0	350	2.2	937
1.5	562	1.3	476	2.6	1,170
1.8	710	1.6	622		
2.0	810				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	446	468	450	310	430	410	480	775	597	481	326	350
2	473	477	500	310	400	390	470	749	647	445	306	403
3	482	483	540	310	380	390	445	749	672	415	296	390
4	454	477	505	310	400	390	424	802	647	390	278	354
5	441	482	486	310	420	390	428	828	647	370	268	326
6	436	482	450	310	400	390	513	882	723	358	275	310
7	428	519	432	310	350	360	622	882	749	342	292	300
8	419	610	419	310	350	320	622	882	698	330	282	296
9	410	710	423	310	360	310	622	855	647	322	275	289
10	406	760	395	310	380	330	622	802	622	310	258	286
11	406	760	360	310	380	380	572	802	622	306	247	282
12	410	785	300	310	350	500	547	802	622	322	234	282
13	436	735	270	310	330	500	542	828	698	322	225	282
14	486	660	280	310	330	470	542	882	882	314	222	282
15	533	540	300	310	330	430	532	937	992	296	237	282
16	552	500	320	310	330	420	522	964	1,110	282	254	282
17	548	470	350	310	330	410	537	992	1,170	275	275	282
18	524	540	360	310	320	390	552	964	1,170	272	275	282
19	543	600	360	310	320	370	552	937	1,050	275	258	278
20	519	590	360	320	*318	360	552	910	992	264	250	322
21	500	643	360	320	310	350	597	882	1,020	258	247	370
22	500	519	340	330	310	380	622	828	937	250	240	362
23	509	509	300	330	310	440	622	775	802	244	237	334
24	514	477	300	*347	320	490	749	749	723	231	234	318
25	514	430	300	360	330	520	882	775	723	228	231	303
26	509	496	300	390	390	530	964	802	647	231	228	296
27	496	*500	300	420	420	510	992	775	622	258	225	289
28	486	432	300	450	430	480	992	723	547	318	234	289
29	477	330	300	460	430	450	964	647	552	358	247	286
30	468	300	310	460	-	430	855	572	517	378	258	286
31	464	-	310	450	-	450	-	557	-	362	292	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	14,789	552	406	477	0.704	0.81
November	16,183	785	300	539	.795	.89
December	11,280	540	270	364	.537	.62
Calendar year 1943	249,360	3,620	270	683	1.01	13.67
January	10,527	460	310	340	.501	.58
February	10,458	430	310	361	.532	.57
March	12,940	530	310	417	.615	.71
April	18,937	992	424	631	.931	1.04
May	25,309	992	557	816	1.20	1.38
June	23,047	1,170	517	768	1.13	1.26
July	9,807	481	228	316	.466	.54
August	8,006	326	222	258	.381	.44
September	9,293	403	278	310	.457	.51
Water year 1943-44	170,576	1,170	222	466	.687	9.35

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 15-20, 25, 27, Nov. 29 to Dec. 3, Dec. 11 to Apr. 2.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Wheeler Lake near Lakewood, Wis.

Location.- Staff gage, lat. 45°19', long. 88°29', in sec. 27, T. 33 N., R. 16 E., on southwest shore of lake at Berglund's Resort, 3½ miles east of Lakewood.
Drainage area.- 2 square miles.
Records available.- August 1936 to September 1944 (fragmentary).
Extremes.- Maximum elevation observed during year, 95.70 feet June 23, 26; minimum, 94.89 feet Sept. 29.
1936-44: Maximum elevation observed, 96.50 feet Oct. 5, Nov. 9, 1943; minimum observed, 93.64 feet Oct. 9, 12, 1937.
Remarks.- Gage heights have been reduced to datum assumed for this lake by Public Service Commission of Wisconsin.

Elevation, in feet, water year October 1943 to September 1944

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 4	5.44	Nov. 29	5.34	Apr. 24	5.50	June 16	5.68	Aug. 11	5.12
8	5.40	Dec. 4	5.34	28	5.50	19	5.68	14	5.12
11	5.40	6	5.36	May 1	5.60	23	5.70	18	5.10
15	5.38	11	5.40	5	5.62	26	5.70	21	5.08
18	5.38	13	5.40	8	5.64	30	5.62	25	4.96
22	5.42	17	5.40	9	5.60	July 3	5.52	28	4.96
25	5.36	20	5.40	12	5.60	7	5.46	Sept. 1	5.02
29	5.34	24	5.36	15	5.60	10	5.46	4	5.02
Nov. 1	5.36	27	5.36	19	5.60	14	5.46	8	4.96
5	5.34	31	5.34	22	5.60	17	5.24	11	4.96
8	5.36	Apr. 3	5.66	26	5.56	21	5.22	15	4.92
12	5.36	7	5.66	29	5.56	24	5.22	18	4.94
15	5.36	10	5.66	June 2	5.58	28	5.30	22	4.98
19	5.36	14	5.66	5	5.54	31	5.30	25	4.97
22	5.36	17	5.50	9	5.54	Aug. 4	5.42	29	4.89
26	5.36	21	5.50	12	5.60	7	5.30		

Note.- Add 90.00 feet to obtain elevation above datum assumed for this lake by Public Service Commission of Wisconsin.

Boot Lake near Townsend, Wis.

Location.- Staff gage, lat. 45°15', long. 88°39', in sec. 9, T. 32 N., R. 15 E., on narrow neck of land cut by a small channel extending across north end of lake, 5½ miles southwest of Townsend.
Drainage area.- 1.5 square miles.
Records available.- August 1936 to September 1944 (fragmentary).
Extremes.- Maximum elevation observed during year, 97.36 feet Oct. 6, 14, 22; minimum, 96.27 feet Aug. 26, Sept. 14, 25.
1936-44: Maximum elevation observed, 98.25 feet June 28, 1943; minimum, 94.69 feet Oct. 31, Nov. 7, 1936.
Remarks.- Gage heights have been reduced to datum assumed for this lake by Public Service Commission of Wisconsin.

Elevation, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	97.20	-	-	-	-	-	-	-	-
2	-	97.24	-	-	-	-	-	-	-	-	96.41	-
3	-	-	-	-	-	97.18	-	-	96.97	-	-	-
4	-	-	-	-	97.20	-	-	-	-	-	-	-
5	-	-	97.27	-	-	-	-	-	-	96.71	-	-
6	97.36	-	-	-	-	-	-	97.17	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	97.20	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	96.31	-
10	-	-	-	-	-	-	-	-	96.87	-	-	-
11	-	-	97.25	-	97.20	97.20	-	-	-	-	-	-
12	-	97.34	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	97.36	-	-	97.18	-	-	-	97.17	-	-	-	96.27
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	97.20	-	-	96.99	96.53	-	-
18	-	-	97.27	-	-	-	-	-	-	-	96.31	-
19	-	-	-	-	97.20	-	-	-	-	-	-	-
20	-	-	-	-	-	-	97.13	-	-	-	-	-
21	-	97.32	-	97.20	-	-	-	-	-	-	-	-
22	97.36	-	-	-	-	-	-	-	-	-	-	-
23	-	-	97.20	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	97.20	-	97.15	96.88	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	96.27
26	-	-	-	-	97.20	-	97.21	-	-	-	96.27	-
27	97.26	-	-	-	-	-	-	-	-	96.47	-	-
28	-	-	-	-	-	-	-	96.77	-	-	-	-
29	-	-	-	97.20	-	-	-	-	-	-	-	-
30	-	97.29	-	-	-	-	-	-	96.93	-	-	-
31	-	-	97.20	-	-	97.20	-	-	-	-	-	-

Time basis: Central war time. To convert war time to standard time, subtract 1 hour

Fox River at Berlin, Wis.

Location.- Staff gage, lat. 43°57'05", long. 88°57'30", in sec. 16, T. 17 N., R. 13 E., at Government lock and dam at Berlin, 2½ miles upstream from Barnes Creek.

Drainage area.- 1,430 square miles.

Records available.- January 1898 to September 1944.

Average discharge.- 46 years, 1,120 second-feet.

Extremes.- Maximum daily discharge during year, 2,290 second-feet Apr. 28, 29; minimum daily, 447 second-feet Aug. 11-17.
1898-1944: Maximum daily discharge, 6,620 second-feet Mar. 21, 23, 1929; minimum daily, 250 second-feet Feb. 1-4, 1900.

Remarks.- Records good except those for period of ice effect, which are fair. Gage read once daily.

Cooperation.- Gage-height record furnished by Corps of Engineers, U. S. Army.

Rating table, water year 1943-44, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 20, July 1 to Sept. 30)

7.5	589	9.5	1,380
8.0	740	10.0	1,630
8.5	920	11.0	2,230
9.0	1,130		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	562	707	740	540	750	1,200	1,630	2,230	809	1,430	489	707
2	562	740	740	540	730	1,280	1,580	2,170	809	1,330	489	774
3	562	740	740	540	720	1,350	1,580	2,170	809	1,230	489	740
4	536	740	740	540	720	1,420	1,530	2,110	774	1,080	467	707
5	562	740	740	540	720	1,480	1,480	2,050	774	1,040	467	707
6	562	774	774	540	720	1,530	1,430	2,050	774	960	489	707
7	562	774	774	540	710	1,490	1,430	1,990	589	845	467	676
8	562	882	809	540	690	1,440	1,430	1,870	562	845	489	646
9	562	1,000	809	540	670	1,400	1,430	1,870	562	809	467	646
10	562	960	809	540	620	1,400	1,380	1,810	617	774	467	617
11	562	1,000	630	540	540	1,450	1,330	1,810	646	740	447	617
12	562	1,000	620	540	580	1,500	1,230	1,750	676	707	447	646
13	589	960	600	540	620	1,550	1,230	1,630	740	646	447	676
14	589	1,000	600	540	620	1,600	1,280	1,580	809	646	447	707
15	589	1,080	580	540	620	1,620	1,280	1,480	845	646	447	707
16	589	1,180	580	550	620	1,640	1,280	1,380	882	589	447	707
17	562	1,380	570	560	620	1,660	1,380	1,330	920	562	447	676
18	589	1,280	560	570	620	1,680	1,480	1,230	1,040	562	467	676
19	589	1,180	560	580	620	1,700	1,530	1,080	1,180	562	489	646
20	589	1,130	550	580	600	1,720	1,530	1,130	1,280	536	467	676
21	589	1,130	540	580	600	1,800	1,580	1,130	1,280	489	467	646
22	617	1,080	540	590	650	1,760	1,580	1,080	1,330	489	467	646
23	646	1,000	530	600	*700	1,720	1,690	1,080	1,430	489	467	646
24	707	960	520	600	780	1,690	1,870	1,040	1,480	489	467	617
25	676	960	520	600	840	1,810	1,990	1,000	1,580	467	467	617
26	676	960	520	*623	920	1,810	2,110	1,000	1,580	512	467	774
27	676	960	520	650	1,000	1,810	2,230	960	1,580	536	467	740
28	707	920	520	670	1,080	1,810	2,290	920	1,580	562	467	774
29	707	845	520	710	1,100	1,750	2,290	845	1,530	536	489	809
30	707	774	530	750	-	1,690	2,230	845	1,530	536	489	809
31	707	-	530	750	-	1,630	-	809	-	512	617	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	18,818	707	536	607	0.424	0.49
November	28,836	1,380	707	961	.672	.75
December	19,315	809	520	623	.436	.50
Calendar year 1943	417,395	5,080	512	1,144	.800	10.85
January	18,063	750	540	583	.409	.47
February	20,780	1,100	540	717	.501	.54
March	49,390	1,810	1,200	1,593	1.11	1.28
April	48,310	2,290	1,230	1,610	1.13	1.26
May	45,429	2,230	809	1,465	1.02	1.18
June	30,997	1,580	562	1,033	.722	.81
July	22,156	1,430	467	715	.500	.58
August	14,663	617	447	473	.331	.38
September	20,739	809	617	691	.483	.54
Water year 1943-44	337,496	2,290	447	922	.645	8.78

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 11 to Mar. 23.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lake Winnebago at Oshkosh, Wis.

Location.- Staff gage, lat. 44°00'40", long. 88°32'00", in sec. 24, T. 18 N., R. 17 E., in mouth of upper Fox River at Chicago & North Western Railway bridge, 0.2 mile downstream from Main Street Bridge in Oshkosh and 18 miles up the lake from Menasha Dam and outlet. Datum of gage, 745.05 feet above mean tide at New York City (levels by Corps of Engineers, U. S. Army). Prior to 1882 lake levels were referred to Deuchman gage at lake outlet at Menasha Dam. Datum of Deuchman gage, which is still in existence, is 745.00 feet above mean tide at New York City.

Drainage area.- 6,030 square miles at lake outlet at Menasha Dam.

Records available.- October 1938 to September 1944. Records from 1857 to 1938 in files of Corps of Engineers, U. S. Army. A report on Fox River by Corps of Engineers, U. S. Army, is published as House Document No. 146, 67th Congress, 2nd Session.

Extremes.- Maximum gage height observed during year, 3.15 feet May 15; minimum observed, 1.42 feet Mar. 22, 23.
1857-1944: Maximum gage height observed, 5.33 feet (Deuchman gage) Nov. 8, 1881; minimum observed, -2.00 feet (Deuchman gage) Nov. 28, 1891.

Remarks.- Lake elevations controlled by dams at Menasha and Neenah which are operated in interest of navigation. Crests of both dams are at elevation 746.73 feet. Present limits of regulation are from 21½ inches above crest of Menasha Dam down to crest during navigation season, plus additional 18 to 24 inches below crest during winter. Oshkosh staff gage gives true level of lake while Deuchman gage readings are affected by loss of head in channel between lake and dam. Gage read once daily.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Gage height, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.13	2.13	2.50	2.00	1.77	1.67	1.67	2.71	3.08	2.94	2.33	1.94
2	2.10	2.15	2.46	1.98	1.77	1.65	1.71	2.79	3.06	2.90	2.31	1.98
3	2.15	2.17	2.46	2.00	1.75	1.58	1.75	2.81	3.08	2.85	2.27	2.04
4	2.13	2.15	2.42	1.98	1.73	1.56	1.73	2.56	2.94	2.85	2.38	2.00
5	2.10	2.13	2.46	1.96	1.73	1.54	1.75	2.85	2.98	2.85	2.23	2.00
6	2.13	2.27	2.46	1.94	1.73	1.50	1.75	2.83	2.83	2.83	2.21	2.04
7	2.10	2.29	2.44	1.92	1.73	1.58	1.75	2.88	2.88	2.79	2.23	2.02
8	2.08	2.31	2.40	1.92	1.71	1.54	1.77	2.92	2.81	2.81	2.17	2.02
9	2.08	2.27	2.38	1.92	1.71	1.52	1.79	2.92	2.83	2.81	2.15	2.04
10	2.21	2.27	2.29	1.92	1.69	1.50	1.79	2.98	2.79	2.83	2.13	2.04
11	2.06	2.38	2.35	1.90	1.69	1.50	1.83	2.92	2.83	2.79	2.08	2.02
12	2.08	2.35	2.35	1.90	1.67	1.48	1.88	3.00	2.92	2.83	2.10	2.10
13	2.19	2.33	2.35	1.88	1.67	1.50	1.88	3.00	2.83	2.79	2.08	2.06
14	2.00	2.40	2.33	1.88	1.65	1.46	1.90	3.06	3.02	2.71	2.02	2.10
15	2.10	2.38	2.31	1.88	1.63	1.44	2.08	3.15	2.96	2.63	2.00	2.08
16	2.06	2.35	2.25	1.85	1.60	1.50	2.06	3.00	2.98	2.56	1.94	2.10
17	2.02	2.40	2.25	1.83	1.58	1.50	2.04	3.06	3.04	2.52	2.08	2.13
18	2.04	2.40	2.23	1.81	1.56	1.48	2.06	3.13	3.13	2.52	2.00	2.13
19	2.06	2.44	2.21	1.79	1.54	1.48	2.10	3.04	3.06	2.48	1.94	2.13
20	2.19	2.52	2.21	1.77	1.52	1.46	2.13	3.00	3.08	2.50	1.94	2.17
21	2.02	2.52	2.19	1.75	1.50	1.46	2.15	2.98	3.06	2.48	1.98	2.19
22	2.02	2.50	2.17	1.75	1.50	1.42	2.23	2.98	3.00	2.44	1.92	2.17
23	2.17	2.46	2.15	1.75	1.54	1.42	2.27	2.96	3.04	2.40	1.88	2.15
24	2.13	2.44	2.15	1.75	1.52	1.46	2.33	3.00	3.02	2.44	1.92	2.13
25	2.10	2.46	2.13	1.73	1.50	1.48	2.35	3.02	3.02	2.40	1.88	2.10
26	2.17	2.52	2.08	1.75	1.50	1.54	2.50	3.00	3.00	2.50	1.83	2.15
27	2.13	2.48	2.08	1.75	1.54	1.58	2.58	3.04	3.00	2.44	1.79	2.17
28	2.10	2.48	2.06	1.73	1.52	1.60	2.60	3.02	3.00	2.46	1.85	2.19
29	2.08	2.46	2.04	1.71	1.58	1.65	2.63	3.00	3.00	2.42	1.83	2.19
30	2.15	2.48	2.04	1.69	-	1.67	2.67	3.00	2.98	2.38	1.85	2.17
31	2.21	-	2.02	1.75	-	1.69	-	3.02	-	2.33	1.85	-

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Fox River at Rapide Croche Dam, near Wrightstown, Wis.

Location.- Lat. 44°19', long. 88°12', in sec. 4, T. 21 N., R. 19 E., at Rapide Croche Dam, 2 miles upstream from Wrightstown.

Drainage area.- 6,150 square miles.

Records available.- March 1896 to September 1944.

Average discharge.- 48 years, 4,314 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 10,800 second-feet June 23; minimum daily, 1,180 second-feet Aug. 25.
1918-44: Maximum daily discharge, 21,300 second-feet June 6, 1943; minimum daily, 138 second-feet Aug. 2, 1936.

Remarks.- Records good. Flow regulated by storage in Lake Winnebago (see p. 56).

Cooperation.- Figures of daily discharge (computed from power-plant records) furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,140	1,760	3,760	2,800	3,360	3,900	4,080	3,620	5,230	7,450	2,850	1,780
2	2,150	1,800	3,660	2,150	3,440	4,440	3,970	3,920	5,600	7,620	2,620	1,450
3	1,690	2,200	3,500	3,170	3,100	4,840	3,980	4,290	5,350	6,710	2,760	1,510
4	2,150	2,140	3,450	2,970	3,590	4,730	4,050	4,900	5,200	4,820	2,580	1,300
5	2,100	2,000	3,180	3,150	2,990	4,500	3,940	4,370	4,810	5,170	2,740	1,420
6	2,180	2,000	3,380	2,880	2,840	4,600	3,720	4,490	4,500	3,850	1,580	1,700
7	2,020	2,310	3,550	2,820	3,440	4,820	3,600	4,420	4,090	3,500	2,090	1,600
8	2,090	2,900	3,500	2,770	3,470	4,680	3,490	4,520	4,040	2,850	2,420	1,650
9	1,850	2,190	3,710	2,620	3,220	4,710	3,320	4,690	4,090	3,020	2,150	1,830
10	1,590	2,480	2,540	2,930	3,200	4,630	3,800	4,780	3,680	3,010	2,380	1,300
11	1,990	2,540	2,060	2,860	3,260	4,510	3,630	4,880	3,840	3,250	2,310	1,380
12	1,910	2,830	2,560	3,230	3,030	4,780	3,580	5,100	3,950	3,300	2,130	1,740
13	2,360	2,480	3,180	2,760	3,260	4,740	2,280	4,550	4,530	3,140	1,840	1,800
14	1,900	2,490	3,100	3,320	3,530	4,660	2,600	4,310	4,860	3,300	1,690	1,650
15	1,720	2,690	3,490	2,680	3,660	4,660	2,580	4,750	3,940	3,300	2,220	1,570
16	1,720	2,450	3,300	2,400	3,880	4,760	2,370	5,420	3,580	2,700	2,140	1,710
17	1,670	2,800	3,500	2,730	3,720	4,700	2,460	5,160	3,960	3,090	1,870	1,190
18	1,780	2,730	3,380	2,930	3,660	4,580	2,760	4,920	2,900	3,000	1,780	1,710
19	2,030	2,670	2,880	2,800	3,860	4,060	2,890	6,000	5,160	2,970	1,950	1,750
20	1,970	2,780	3,330	2,650	3,780	4,360	2,940	5,790	7,090	2,840	1,890	1,700
21	2,090	2,450	3,280	3,010	3,720	4,370	2,750	5,210	10,200	2,710	1,710	1,750
22	1,820	2,710	3,100	2,630	4,030	4,680	2,890	5,630	10,200	2,780	1,830	2,200
23	1,710	3,060	3,180	2,320	3,860	4,810	2,970	5,680	10,800	2,480	1,880	2,230
24	1,590	2,910	2,320	2,300	3,800	4,240	3,420	4,320	9,870	2,600	1,830	1,980
25	1,600	3,120	3,020	2,760	3,800	4,120	3,590	4,260	9,600	2,940	1,180	2,150
26	2,140	3,190	2,680	3,000	4,340	3,880	3,290	4,340	9,190	2,940	1,750	2,220
27	1,950	3,400	3,500	4,080	3,720	3,900	3,230	4,130	7,500	2,750	1,520	2,130
28	1,960	3,510	3,150	3,580	3,880	4,080	3,160	3,890	7,680	2,860	1,380	2,120
29	2,070	3,470	2,850	2,800	3,630	4,270	3,500	4,220	7,230	2,520	1,530	2,240
30	1,780	3,740	3,010	2,790	-	4,240	3,190	4,270	7,870	2,740	1,820	2,400
31	1,820	-	2,960	3,730	-	3,900	-	4,230	-	2,740	1,770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	59,540	2,360	1,590	1,921	0.312	0.36
November	79,800	3,740	1,760	2,660	.433	.48
December	98,060	3,760	2,060	3,163	.514	.59
Calendar year 1943	1,758,100	21,300	1,590	4,817	.783	10.60
January	89,620	4,080	2,150	2,891	.470	.54
February	103,070	4,340	2,840	3,554	.578	.62
March	138,150	4,840	3,880	4,456	.725	.84
April	98,030	4,080	2,280	3,268	.531	.59
May	145,060	6,000	3,620	4,679	.761	.88
June	180,540	10,800	2,900	6,018	.979	1.09
July	109,300	7,620	2,480	3,526	.573	.66
August	61,990	2,850	1,180	2,000	.325	.37
September	53,160	2,400	1,190	1,772	.288	.32
Water year 1943-44	1,216,320	10,800	1,180	3,323	.540	7.34

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Silver Lake at Portage, Wis.

Location.- Staff gage, lat. 43°33', long. 89°29', in sec. 6, T. 12 N., R. 9 E., at ice hoist of C. Smith & Son, at southeast end of lake.
Drainage area.- 1 square mile.
Records available.- August 1936 to September 1944 (fragmentary).
Extremes.- Maximum elevation observed during year, 93.10 feet June 23; minimum, 92.48 feet Oct. 15.
1936-44: Maximum elevation observed, that of June 23, 1944; minimum, 90.85 feet Aug. 22, 24, 1937.
Remarks.- Gage heights have been reduced to datum assumed for this lake by Public Service Commission of Wisconsin.

Elevation, in feet, water year October 1943 to September 1944

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 2	7.51	Nov. 28	7.57	Apr. 22	8.00	June 19	8.01	Aug. 11	7.60
9	7.49	Dec. 4	7.57	30	8.02	23	8.10	18	7.56
15	7.48	11	7.56	May 6	8.07	30	8.00	26	7.52
23	7.51	19	7.56	13	7.98	July 9	7.85	Sept. 1	7.65
30	7.51	25	7.54	20	7.90	15	7.80	8	7.62
Nov. 6	7.52	Apr. 1	8.02	27	7.90	22	7.70	16	7.70
13	7.55	8	7.97	June 3	7.85	29	7.68	22	7.65
20	7.57	15	7.97	10	7.82	Aug. 4	7.65	29	7.65

Note.- Add 85 feet to obtain elevation above datum assumed for this lake by the Public Service Commission of Wisconsin.

Little Green Lake near Markesan, Wis.

Location.- Staff gage, lat. 43°44', long. 88°58', in sec. 32, T. 15 N., R. 13 E., within 50 feet of lake outlet and 1½ miles north of Markesan.
Drainage area.- 5 square miles.
Records available.- August 1936 to September 1944 (fragmentary).
Extremes.- Maximum elevation observed during year, 95.74 feet June 22; minimum, 94.62 feet Nov. 6.
1936-44: Maximum elevation observed, 96.74 feet June 23, 24, 1940; minimum, 94.28 feet Sept. 10, 11, 1936.
Remarks.- Gage heights have been referred to datum assumed for this lake by Public Service Commission of Wisconsin.

Elevation, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.80	4.64					-	5.58	5.50	5.54	5.16	5.14
2	4.80	4.64					-	5.56	5.60	5.54	5.14	5.16
3	4.78	4.64					-	5.56	5.60	5.52	5.14	5.14
4	4.78	4.64					-	5.58	5.58	5.52	5.12	5.12
5	4.78	4.64					-	5.60	5.58	5.50	5.12	5.12
6	4.76	4.62					-	5.60	5.56	5.48	5.10	5.10
7	4.76	4.70					-	5.58	5.54	5.44	5.10	5.10
8	4.76	4.76					-	5.58	5.52	5.42	5.08	5.08
9	4.74	-					-	5.56	5.52	5.40	5.06	5.08
10	4.74	-					-	5.56	5.50	5.38	5.04	5.06
11	4.72	-					-	5.54	5.50	5.36	5.02	5.06
12	4.72	-					-	5.54	5.48	5.34	5.00	5.12
13	4.70	-					-	5.54	5.50	5.32	5.00	5.18
14	4.70	-					-	5.52	5.56	5.32	4.98	5.18
15	4.68	-					-	5.52	5.56	5.30	4.98	5.18
16	4.68	-					-	5.52	5.60	5.30	4.96	5.16
17	4.66	-					-	5.50	5.60	5.28	5.10	5.16
18	4.66	-					-	5.50	5.62	5.26	5.10	5.14
19	4.64	-					5.52	5.50	5.66	5.24	5.08	5.14
20	4.64	-					5.52	5.48	5.64	5.22	5.08	5.14
21	4.68	-					5.52	5.48	5.62	5.20	5.08	5.12
22	4.68	-					5.53	5.48	5.74	5.18	5.06	5.12
23	4.68	-					5.56	5.48	5.72	5.18	5.06	5.12
24	4.68	-					5.62	5.46	5.70	5.18	5.04	5.10
25	4.66	-					5.62	5.46	5.68	5.22	5.04	5.10
26	4.66	-					5.62	5.46	5.64	5.22	5.02	5.10
27	4.66	-					5.60	5.46	5.60	5.22	4.98	5.10
28	4.66	-					5.60	5.46	5.58	5.20	5.02	5.12
29	4.66	-					5.60	5.46	5.56	5.18	5.02	5.12
30	4.66	-					5.58	5.48	5.54	5.18	5.00	5.12
31	4.66	-					-	5.50	-	5.16	5.10	-

Note.- Add 90 feet to obtain elevation above datum assumed for this lake by Public Service Commission of Wisconsin.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Wolf River above West Branch Wolf River, Wis.

Location.- Chain gage, lat. 44°55', long. 88°39', in E½ sec. 3, T. 28 N., R. 15 E., half a mile upstream from West Branch Wolf River and 4 miles north of Keshena. Datum of gage is 856.57 feet above mean sea level (levels by Wisconsin Power & Light Co.).

Drainage area.- 633 square miles.

Records available.- March 1928 to September 1944.

Average discharge.- 16 years, 584 second-feet.

Extremes.- Maximum discharge observed during year, 1,600 second-feet May 13 (gage height, 4.51 feet); minimum daily, 270 second-feet Dec. 15, 16.
1928-44: Maximum discharge observed, 2,580 second-feet Apr. 8, 1929 (gage height, 6.10 feet), from rating curve extended above 1,600 second-feet; minimum observed, 199 second-feet Feb. 20, 1936.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read once daily.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.6	281	3.0	794
2.0	396	3.5	1,040
2.5	578	4.0	1,310

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	619	619	500	360	560	475	550	794	988	538	396	538
2	578	619	550	360	530	470	550	938	938	538	380	538
3	538	619	578	360	500	460	550	1,090	794	464	348	500
4	538	619	619	355	490	455	560	1,250	748	464	333	464
5	538	619	619	355	480	445	578	1,250	794	464	333	396
6	538	619	578	350	470	435	661	1,150	748	430	333	396
7	538	661	538	350	460	420	794	1,040	704	413	333	396
8	500	a876	538	350	455	410	a870	1,040	704	380	320	380
9	500	1,090	520	350	450	410	794	1,040	704	380	320	363
10	500	1,040	490	350	445	425	794	1,040	704	363	306	363
11	500	889	440	350	440	450	661	988	704	380	306	363
12	500	830	350	350	430	470	578	1,150	704	380	306	380
13	578	800	300	350	425	480	578	1,600	889	380	306	380
14	619	760	285	360	420	480	578	1,420	988	363	306	380
15	661	700	270	370	420	475	578	1,310	889	363	348	380
16	619	670	270	380	415	465	538	1,250	841	348	333	380
17	578	650	280	400	410	455	538	1,250	841	348	363	380
18	578	630	310	405	405	450	538	1,200	889	363	363	380
19	578	620	370	410	400	450	538	1,200	1,040	348	348	396
20	538	620	395	415	*400	450	538	1,150	988	348	333	538
21	538	620	395	415	400	455	538	1,090	889	333	333	464
22	619	619	390	420	405	460	619	1,040	794	333	333	464
23	619	619	390	425	410	475	794	1,090	748	333	333	430
24	661	578	385	*430	415	500	841	1,040	794	320	320	413
25	661	578	380	450	425	540	889	1,090	794	333	320	413
26	661	560	380	480	445	590	889	1,090	704	380	320	396
27	619	540	375	520	470	600	841	1,040	661	538	320	396
28	619	*500	370	570	475	590	794	938	661	464	348	396
29	619	450	365	590	480	570	748	889	578	464	380	396
30	619	460	360	600	-	560	748	841	538	430	396	396
31	619	-	360	580	-	550	-	889	-	413	578	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	17,990	661	500	580	0.916	1.06
November	20,074	1,090	450	669	1.06	1.18
December	12,950	619	270	418	.660	.76
Calendar year 1943	273,526	1,830	270	749	1.18	16.09
January	12,810	600	350	413	.652	.75
February	12,930	560	400	446	.705	.76
March	14,920	600	410	481	.760	.88
April	20,065	889	538	669	1.06	1.18
May	34,187	1,600	794	1,103	1.74	2.01
June	23,760	1,040	538	792	1.25	1.40
July	12,396	538	320	400	.632	.73
August	10,695	578	306	345	.545	.63
September	12,455	538	363	415	.656	.73
Water year 1943-44	205,232	1,600	270	561	.883	12.07

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station at Keshena Falls.
Note.- Stage-discharge relation affected by ice Nov. 12-22, Nov. 26 to Dec. 2, Dec. 9 to Apr. 4.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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Wolf River at Keshena Falls, Wis.

Location.- Water-stage recorder, lat. 44°53', long. 88°39', in E½ sec. 22, T. 28 N., R. 15 E., 500 feet downstream from Keshena Falls, 1½ miles upstream from Keshena, and 2½ miles downstream from West Branch.

Drainage area.- 812 square miles.

Records available.- March 1928 to September 1944. May 1907 to March 1909 and February 1911 to March 1928 at site at Keshena, 1½ miles downstream.

Average discharge.- 34 years (1907-8, 1911-44), 799 second-feet.

Extremes.- Maximum discharge during year, 1,840 second-feet May 14 (gage height, 7.12 feet); minimum discharge, 367 second-feet Aug. 12, 15 (gage height, 5.28 feet).
1907-9, 1911-44: Maximum discharge observed, 4,390 second-feet Apr. 10, 1922, from rating curve extended above 2,100 second-feet; minimum discharge, 91 second-feet Dec. 22, 1939 (gage height, 4.67 feet), result of low temperature.

Remarks.- Records good except those for period of ice effect or no gage-height record, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	809	809	680	470	750	650	885	992	1,420	656	500	809
2	801	801	750	470	700	640	876	1,160	1,380	642	477	714
3	677	801	800	480	650	640	834	1,360	1,200	628	460	614
4	707	785	820	480	660	630	785	1,600	1,040	582	448	562
5	677	793	810	490	670	630	752	1,700	1,040	582	448	537
6	699	817	790	490	650	620	851	1,520	1,060	575	488	518
7	692	894	760	480	630	600	1,030	1,380	919	549	471	512
8	656	1,180	720	480	620	560	1,160	1,340	885	512	442	506
9	663	1,470	690	470	610	550	1,060	1,380	894	512	426	482
10	677	1,470	640	460	600	570	956	1,340	902	506	415	512
11	677	1,200	580	460	600	610	894	1,260	876	494	404	500
12	635	1,000	440	460	590	660	776	1,380	983	525	382	500
13	714	1,100	410	460	580	680	776	1,740	1,220	500	399	494
14	868	992	380	470	570	680	801	1,840	1,600	488	393	500
15	876	930	370	480	570	660	768	1,700	1,380	471	415	506
16	826	900	370	490	560	640	730	1,560	1,240	488	477	500
17	801	850	380	510	550	620	a720	1,560	1,070	477	460	518
18	760	830	430	520	550	620	a730	1,520	1,120	460	465	512
19	707	820	480	530	550	620	a750	1,470	1,340	454	460	494
20	699	830	500	540	*550	620	a800	1,470	1,340	442	465	663
21	714	830	510	540	550	630	a860	1,380	1,120	437	465	745
22	785	820	510	560	550	640	a1,000	1,340	1,020	431	426	730
23	809	800	500	570	550	660	a1,150	1,340	965	460	415	621
24	826	770	500	*590	560	700	1,290	1,270	1,000	460	393	568
25	842	750	490	610	570	800	1,340	1,290	1,000	426	393	556
26	834	730	490	630	600	900	1,260	1,290	937	460	388	543
27	826	710	490	680	660	900	1,100	1,270	885	601	426	512
28	809	660	480	750	670	860	1,080	1,200	885	621	471	512
29	826	600	480	800	660	800	1,040	1,130	809	562	471	512
30	801	610	470	820	-	740	983	1,060	722	562	477	512
31	768	-	470	800	-	700	-	1,100	-	537	692	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	23,461	876	635	757	0.932	1.07
November	26,552	1,470	600	885	1.09	1.22
December	17,190	820	370	555	.683	.79
Calendar year 1943	354,346	2,860	370	971	1.20	16.24
January	17,040	820	460	550	.677	.78
February	17,580	750	550	606	.746	.90
March	20,830	900	550	672	.828	.95
April	28,037	1,340	720	935	1.15	1.28
May	42,962	1,840	992	1,386	1.71	1.97
June	32,252	1,600	722	1,075	1.32	1.47
July	16,100	656	426	519	.639	.74
August	13,912	692	382	449	.553	.64
September	16,764	809	482	559	.688	.77
Water year 1943-44	272,680	1,840	370	745	.917	12.48

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of record for station above West Branch.
Note.- Stage-discharge relation affected by ice Nov. 15 to Mar. 31.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Wolf River at New London, Wis.

Location.- Staff gage, lat. 44°23', long. 88°44', in sec. 12, T. 22 N., R. 14 E., at right bank, about 15 feet downstream from Pearl Street Bridge and three-quarters of a mile downstream from Embarrass River. Datum of gage is 749.37 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 2,240 square miles.

Records available.- October 1913 to September 1944.

Average discharge.- 31 years, 1,846 second-feet.

Extremes.- Maximum discharge observed during year, 6,080 second-feet June 22 (gage height, 8.3 feet); minimum daily, 590 second feet Dec. 16.

1913-44: Maximum discharge observed, 15,500 second-feet Apr. 13, 1922 (gage height, 11.4 feet), from rating curve extended above 12,000 second-feet; minimum, 261 second-feet Sept. 6, 1933.

Maximum stage known, 11.6 feet Apr. 16, 1888, from information by Corps of Engineers, U. S. Army.

Remarks.- Records good except those for period of ice effect, which are fair. Gage read once daily.

Cooperation.- Gage-height record furnished by Corps of Engineers, U. S. Army.

Rating table, water year 1943-44, except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.5	629	3.0	1,600	7.0	4,220
1.0	808	4.0	2,080	7.5	4,790
1.5	995	5.0	2,640	8.0	5,500
2.0	1,190	6.0	3,330		
2.5	1,390	6.5	3,750		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,110	1,270	1,000	710	1,190	1,120	1,390	3,190	2,130	3,120	919	995
2	1,230	1,310	1,100	710	1,140	1,120	1,360	3,190	2,330	2,700	845	1,270
3	1,230	1,350	1,220	720	1,070	1,100	1,360	3,050	2,390	2,330	882	1,390
4	1,270	1,350	1,280	720	1,030	1,070	1,380	2,910	2,390	1,930	771	1,470
5	1,310	1,350	1,290	710	990	1,040	1,420	2,910	2,330	1,550	771	1,510
6	1,310	1,390	1,270	710	970	1,030	1,510	2,840	2,280	1,430	735	1,350
7	1,270	1,430	1,230	710	960	1,020	1,730	2,840	2,180	1,270	735	1,190
8	1,190	1,510	1,190	700	940	970	1,780	2,770	1,980	1,190	735	1,110
9	1,110	1,780	1,140	690	920	920	2,080	2,770	1,830	1,110	735	1,030
10	1,110	2,030	1,080	680	900	900	2,230	2,840	1,730	1,070	735	957
11	1,070	2,130	1,000	680	900	940	2,390	2,840	1,690	995	771	919
12	1,110	2,180	920	675	900	1,010	2,390	2,840	1,690	957	735	845
13	1,110	2,160	700	675	900	1,070	2,330	2,840	1,600	882	699	808
14	1,270	2,080	630	680	900	1,110	2,230	2,840	1,640	882	629	771
15	1,230	1,900	600	700	890	1,120	1,980	2,840	2,390	995	664	735
16	1,270	1,770	590	720	880	1,120	1,880	2,840	3,490	995	699	882
17	1,310	1,630	600	730	860	1,110	1,880	2,980	3,660	957	735	957
18	1,350	1,500	640	760	850	1,080	1,880	2,980	3,840	919	882	957
19	1,310	1,440	710	780	860	1,060	1,980	2,980	4,440	957	919	919
20	1,270	1,400	750	790	870	1,030	2,030	3,050	5,340	919	882	845
21	1,270	1,390	770	815	880	1,030	2,030	3,050	5,870	808	882	957
22	1,310	1,380	770	835	*896	1,030	2,130	2,980	6,080	808	771	1,070
23	1,270	1,370	770	840	910	1,070	2,230	2,910	5,870	808	771	1,390
24	1,270	1,340	770	850	910	1,120	2,450	2,840	5,500	845	735	1,550
25	1,270	1,260	750	*850	920	1,190	2,640	2,840	5,190	771	735	1,600
26	1,270	1,220	750	860	960	1,300	2,980	2,840	4,920	771	735	1,470
27	1,310	1,180	740	890	1,020	1,430	3,050	2,570	4,550	882	664	1,270
28	1,310	1,140	740	940	1,060	1,500	3,120	2,330	4,120	882	664	1,150
29	1,270	*1,060	730	1,040	1,110	1,500	3,120	2,230	3,840	882	735	1,110
30	1,230	970	720	1,150	-	1,470	3,190	2,080	3,490	957	808	1,030
31	1,230	-	710	1,200	-	1,420	-	1,980	-	957	882	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	38,450	1,350	1,070	1,240	0.554	0.64
November	45,270	2,180	970	1,509	.674	.75
December	27,160	1,290	590	876	.391	.45
Calendar year 1943	819,910	11,700	590	2,246	1.00	13.62
January	24,520	1,200	675	791	.353	.41
February	27,586	1,190	850	951	.425	.46
March	35,000	1,500	900	1,129	.504	.58
April	64,150	3,190	1,360	2,138	.954	1.06
May	86,990	3,190	1,980	2,806	1.25	1.44
June	100,780	6,080	1,600	3,359	1.50	1.67
July	36,529	3,120	771	1,178	.526	.61
August	23,860	919	629	770	.344	.40
September	33,507	1,600	735	1,117	.499	.56
Water year 1943-44	543,802	6,080	590	1,486	.663	9.03

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 13 to Apr. 5.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Embarrass River near Embarrass, Wis.

Location.- Water-stage recorder, lat. 44°43', long. 88°44', on line between sec. 13, T. 26 N., R. 14 E., and sec. 18, T. 26 N., R. 15 E., three-quarters of a mile downstream from Mill Creek and 4 miles northwest of Embarrass.

Drainage area.- 395 square miles.

Records available.- June 1919 to September 1944.

Average discharge.- 25 years, 305 second-feet.

Extremes.- Maximum discharge during year, 2,460 second-feet June 14 (gage height, 6.95 feet); minimum, 71 second-feet Aug. 14 (gage height, 2.67 feet).
1919-44: Maximum discharge observed, 6,760 second-feet Apr. 10, 1922 (gage height, 11.5 feet), from rating curve extended above 2,800 second-feet; minimum observed, 23 second-feet Aug. 3, 6, 7, 1931.

Remarks.- Records good except those for periods of ice effect, which are fair. Slight diurnal fluctuation caused by power plants above station.

Rating table, water year 1943-44, *except periods of ice effect*
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 20 to Sept. 30)

2.7	78	4.0	612
3.0	154	4.5	892
3.2	220	5.0	1,180
3.4	302	6.0	1,800

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	272	232	173	94	272	213	196	470	302	285	124	535
2	255	236	179	92	170	163	151	429	461	240	135	461
3	293	243	188	97	192	173	179	562	338	202	120	324
4	285	236	182	103	135	149	170	746	338	185	102	220
5	240	243	166	110	170	155	143	830	255	188	110	199
6	206	247	188	112	160	155	247	786	220	182	92	228
7	213	293	188	111	140	142	601	623	228	160	92	224
8	206	568	176	111	145	133	713	514	228	149	104	202
9	192	864	176	114	160	140	679	498	236	122	114	206
10	179	892	178	117	180	149	552	498	289	102	107	188
11	179	735	178	116	140	156	476	470	243	154	104	173
12	176	530	178	115	140	175	311	470	324	216	97	149
13	220	424	155	120	132	200	324	568	948	151	85	146
14	232	338	112	122	130	194	334	791	1,990	149	76	146
15	316	276	128	120	140	185	311	707	1,860	163	102	160
16	316	272	138	112	140	176	289	562	1,360	132	213	143
17	224	280	140	103	146	182	298	535	974	114	247	157
18	202	240	138	112	147	163	352	623	892	127	276	173
19	216	236	118	124	133	138	413	640	1,000	149	182	143
20	213	243	74	125	122	202	397	557	886	127	117	259
21	216	220	105	123	*113	179	413	471	657	124	122	590
22	243	240	116	125	122	170	455	397	450	127	124	657
23	236	216	120	131	129	*151	514	367	382	107	130	498
24	259	210	119	132	129	228	802	408	470	97	130	329
25	268	199	106	*140	132	372	1,060	387	492	100	117	268
26	232	179	94	155	150	498	974	320	470	117	102	192
27	213	170	95	152	176	408	802	247	372	149	102	232
28	210	*176	100	180	185	302	646	268	445	160	138	210
29	210	199	95	230	197	228	514	236	445	163	132	176
30	206	213	96	263	-	210	439	220	338	120	135	166
31	202	-	100	213	-	196	-	224	-	127	268	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,130	316	176	230	0.582	0.67
November	9,650	892	170	322	.815	.91
December	4,299	188	74	139	.352	.41
Calendar year 1943	144,447	4,150	74	396	1.00	13.61
January	4,074	263	92	131	.332	.38
February	4,427	272	113	153	.387	.42
March	6,285	498	133	203	.514	.59
April	13,755	1,060	143	458	1.16	1.29
May	15,424	830	220	498	1.26	1.45
June	17,893	1,990	220	596	1.51	1.68
July	4,688	285	97	151	.382	.44
August	4,099	276	76	132	.334	.39
September	7,754	657	143	258	.653	.73
Water year 1943-44	99,478	1,990	74	272	.689	9.36

Peak discharge.- Nov. 9 (1 p.m.) 974 sec.-ft.; Apr. 25 (11 a.m.) 1,210 sec.-ft.; May 5 (6 p.m.) 864 sec.-ft.; June 14 (9 p.m.) 2,460 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 10 to Jan. 29, Feb. 6-29, Mar. 5-15.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Little Wolf River at Royalton, Wis.

Location.- Water-stage recorder, lat. 44°24', long. 88°51', in sec. 1, T. 22 N., R. 13 E., 4 miles upstream from mouth.

Drainage area.- 465 square miles.

Records available.- January 1914 to September 1944.

Average discharge.- 30 years, 439 second-feet.

Extremes.- Maximum discharge during year, 2,860 second-feet June 20 (gage height, 4.55 feet); minimum, 120 second-feet Aug. 15 (gage height, 1.17 feet); minimum daily discharge, 120 second-feet Dec. 16.

1914-44: Maximum discharge, 6,950 second-feet Mar. 30, 1943 (gage height, 8.00 feet), from rating curve extended above 3,500 second-feet; maximum gage height, 10.33 feet Mar. 25, 1939 (affected by ice); minimum discharge, 57 second-feet Feb. 10, 1934.

Remarks.- Records good except those for periods of ice effect, which are fair. Diurnal fluctuation caused by power plant 6 miles above station.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 1 to Sept. 30)

Oct. 1 to Nov. 8		Nov. 9 to Sept. 30			
1.4	206	1.1	118	2.5	902
1.6	290	1.3	172	3.0	1,310
1.8	402	1.5	258	3.5	1,750
2.1	590	1.9	427	4.0	2,230
		2.1	616	4.5	2,750

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	249	300	356	145	268	363	312	558	783	398	199	650
2	278	305	306	181	232	328	281	532	747	368	214	584
3	258	263	260	181	257	315	361	596	670	274	195	380
4	308	310	279	180	281	300	313	733	409	345	195	311
5	263	300	258	205	263	260	331	783	409	263	196	285
6	258	276	292	199	273	248	526	754	380	230	199	263
7	258	477	271	198	245	225	705	630	351	263	174	263
8	248	577	296	220	230	215	798	577	253	260	188	239
9	244	698	246	213	215	212	664	623	368	225	198	242
10	238	790	266	218	200	257	584	603	374	239	180	244
11	222	664	150	164	202	381	564	564	322	244	180	234
12	272	538	125	153	204	563	464	532	513	300	180	292
13	272	522	140	170	199	536	433	705	1,020	279	160	336
14	305	384	168	174	192	545	451	834	1,750	274	160	370
15	258	358	165	172	185	346	470	812	2,330	300	179	320
16	330	381	120	150	195	330	470	712	2,080	207	193	269
17	245	336	140	217	195	270	427	684	1,440	192	300	253
18	295	361	153	222	190	230	532	630	1,200	225	265	283
19	229	400	140	216	192	223	610	584	2,430	249	241	243
20	281	287	175	200	207	231	564	577	2,700	225	207	253
21	245	320	173	192	234	236	643	520	2,280	190	206	430
22	305	316	152	220	*278	260	603	513	1,480	195	196	526
23	352	303	184	216	262	328	698	488	964	201	198	494
24	377	298	188	230	270	476	902	470	740	201	256	306
25	320	230	138	*239	256	650	1,100	476	705	188	221	300
26	300	307	120	248	584	677	1,090	421	584	258	198	322
27	300	331	140	325	639	526	957	362	538	302	192	258
28	290	*220	150	367	574	398	761	322	520	310	263	322
29	258	328	167	375	487	345	596	357	494	305	220	263
30	276	316	172	280	-	292	584	279	470	227	249	334
31	286	-	175	302	-	348	-	421	-	233	464	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	8,620	377	222	278	0.573	0.66
November	11,496	790	220	383	.790	.88
December	6,065	356	120	196	.404	.47
Calendar year 1943	181,897	5,230	120	498	1.07	13.97
January	6,772	375	145	219	.452	.52
February	8,009	639	185	276	.569	.61
March	10,914	677	212	352	.726	.84
April	17,794	1,100	281	593	1.22	1.36
May	17,652	834	279	569	1.17	1.35
June	29,304	2,700	253	977	2.01	2.24
July	7,970	398	188	257	.530	.61
August	6,666	464	160	215	.443	.51
September	9,869	650	234	329	.678	.76
Water year 1943-44	141,131	2,700	120	386	.796	10.81

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 10 to Jan. 26, Feb. 2, 3, 8-19, Mar. 8, 9, 16-22.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Waupaca River near Waupaca, Wis.

Location.- Water-stage recorder, lat. 44°21', long. 88°59', near north line of sec. 1, T. 21 N., R. 12 E., at highway bridge, 1½ miles downstream from Crystal River and 4 miles downstream from Waupaca.

Drainage area.- 305 square miles.

Records available.- October 1917 to September 1944. June 1916 to October 1917 at site 1 mile downstream.

Average discharge.- 28 years, 254 second-feet.

Extremes.- Maximum discharge during year, 1,050 second-feet Mar. 12 (gage height, 3.98 feet); minimum daily, 100 second-feet Dec. 14 (affected by ice).
1916-44: Maximum discharge observed, 2,600 second-feet Mar. 17, 1919 (gage height, 5.6 feet), from rating curve extended above 1,000 second-feet; minimum observed, 35 second-feet Jan. 22, 28, 1926.

Remarks.- Records good except those for periods of ice effect, which are fair. Considerable diurnal fluctuation caused by power plant above station.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 10, July 15 to Aug. 31)

1.4	169	2.3	458
1.6	223	2.6	562
1.8	287	2.9	665
2.0	355		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	251	223	166	257	257	248	261	267	226	198	355
2	215	257	217	165	217	245	229	264	245	215	201	294
3	198	238	229	180	217	238	242	294	226	215	198	261
4	206	226	226	197	220	229	226	314	206	206	201	245
5	198	242	215	196	203	229	238	297	209	206	195	238
6	190	242	215	153	170	223	311	277	192	209	190	248
7	192	304	232	165	156	170	410	261	201	195	198	226
8	201	404	217	145	152	150	362	267	190	209	179	217
9	190	400	223	155	149	167	335	277	201	203	187	209
10	212	335	217	164	142	250	301	270	217	201	190	215
11	212	301	145	165	136	500	267	251	212	209	187	223
12	203	277	114	160	130	756	254	251	238	217	182	264
13	217	274	103	143	130	445	248	267	348	220	174	274
14	232	287	100	142	135	294	267	264	465	212	190	242
15	226	254	118	150	150	245	264	254	383	203	177	235
16	226	261	140	162	180	242	267	248	331	192	203	235
17	212	242	160	176	200	229	287	264	301	206	203	223
18	217	251	173	188	185	229	318	267	334	203	195	220
19	212	248	180	202	179	223	301	206	631	203	195	212
20	201	245	180	213	194	238	287	257	614	190	185	232
21	229	235	178	220	217	226	301	238	380	190	201	245
22	301	235	167	223	*241	245	297	251	304	187	185	251
23	274	242	155	219	270	254	352	245	383	182	187	235
24	248	223	133	209	270	318	390	232	355	185	190	235
25	235	223	147	205	320	468	386	226	314	190	187	217
26	248	220	160	*254	631	383	345	223	290	223	185	226
27	232	245	170	350	700	270	311	217	270	264	185	217
28	223	229	177	320	362	245	284	203	248	238	203	223
29	217	*217	178	290	264	251	264	195	251	215	195	220
30	220	229	178	245	-	242	254	201	232	192	217	206
31	215	-	174	232	-	235	-	209	-	203	355	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,511	301	190	220	0.721	0.83
November	7,837	404	217	261	.856	.96
December	5,444	232	100	176	.577	.67
Calendar year 1943	103,297	1,310	100	283	.928	12.59
January	6,184	350	142	199	.652	.75
February	6,777	700	130	234	.767	.83
March	8,696	756	150	281	.921	1.06
April	8,846	410	226	295	.967	1.08
May	7,751	314	195	250	.820	.95
June	9,088	631	190	303	.993	1.11
July	6,409	264	182	207	.679	.78
August	6,118	355	174	197	.646	.74
September	7,143	355	206	238	.780	.87
Water year 1943-44	87,104	756	100	238	.780	10.63

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 29, Feb. 6-25, Mar. 7-10.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Branch Fond du Lac River at Fond du Lac, Wis.

Location.- Water-stage recorder, lat. 43°45'45", long. 88°29'00", on line between secs. 17 and 20, T. 15 N., R. 17 E., at concrete bridge on County Trunk Highway T, three-quarters of a mile west of Fond du Lac and 2½ miles upstream from confluence with East Branch. Datum of gage is 766.78 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 88 square miles.

Records available.- March 1939 to September 1944.

Extremes.- Maximum discharge during year, 202 second-feet June 23 (gage height, 2.02 feet); no flow on many days.
1939-44: Maximum daily discharge, 1,390 second-feet Mar. 27, 1943; no flow on many days.

Remarks.- Records good except those below 1 second-foot and those for periods of ice effect, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0	0.2	0	0.6	49	34	36	3.7	24	2.1	0.6
2	.1	0	.2	0	.6	40	32	32	4.1	20	1.4	.5
3	.1	0	.2	0	.6	32	33	27	2.9	16	.8	.4
4	.1	0	.2	0	.5	24	38	27	2.3	11	.6	.3
5	.1	.1	.2	0	.5	19	42	25	1.8	9.9	.4	.3
6	.1	.1	.6	0	.4	15	46	24	1.4	7.8	.4	.2
7	.1	.2	.8	0	.4	12	44	22	.8	6.4	.2	.2
8	.1	.2	1.6	0	.4	9.4	38	21	.6	7.3	.2	.1
9	0	.8	.6	0	.4	8.1	34	18	1.0	6.8	.1	0
10	0	1.2	.7	0	.3	8.3	32	17	1.8	4.8	0	.1
11	0	1.2	1.4	0	.3	9.5	29	16	1.6	16	0	0
12	0	1.4	.7	0	.3	14	25	16	3.7	25	0	0
13	.1	.8	.5	0	.3	20	24	18	6.8	18	0	1.2
14	.1	1.2	.2	0	.3	26	24	18	11	13	0	1.0
15	.1	.7	.2	0	.3	30	29	16	12	9.4	0	.6
16	.1	.6	.1	0	.3	29	27	14	19	7.8	0	1.2
17	.1	a.5	.1	0	.3	27	32	11	21	6.4	.2	2.5
18	.1	a.5	.1	0	.3	24	32	8.9	25	6.0	.1	1.2
19	.1	a.5	.2	0	.3	21	31	8.4	31	5.2	0	1.0
20	.1	a.6	.2	.1	.3	21	29	6.4	37	4.1	0	1.2
21	.1	a.6	.2	.1	2.0	26	30	6.0	39	2.7	0	.8
22	.1	a.5	.2	.2	10	35	29	5.2	41	1.8	0	.6
23	.1	a.5	0	.2	*37	58	32	4.8	83	1.2	0	.5
24	.1	.4	0	.3	30	47	50	4.8	52	.8	0	.6
25	.1	.3	0	.3	32	40	53	4.1	43	.6	0	.4
26	.1	.3	0	.5	40	42	58	3.7	38	2.3	0	.4
27	.1	.2	0	*2.0	53	43	60	3.7	38	2.3	0	.4
28	.1	.2	0	1.6	55	44	57	2.7	35	3.7	.1	2.1
29	.1	.2	0	1.3	56	43	49	2.1	32	3.7	0	2.1
30	.1	*.2	0	1.0	-	39	42	1.8	28	3.3	0	1.0
31	.1	-	0	.8	-	36	-	2.7	-	2.7	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2.7	0.1	0	0.09	0.0010	0.001
November	14.0	1.4	0	.47	.0053	.006
December	9.4	1.6	0	.30	.0034	.004
Calendar year 1943	19,972.2	1,390	0	54.7	.622	8.43
January	8.4	2.0	0	.27	.0031	.004
February	322.7	56	.3	11.1	.126	.14
March	891.3	58	8.1	28.8	.327	.38
April	1,115	60	24	37.2	.423	.47
May	423.3	36	1.8	13.7	.156	.18
June	617.5	83	.6	20.6	.234	.26
July	250.0	25	.6	8.06	.092	.11
August	7.2	2.1	0	.23	.0026	.003
September	21.5	2.5	0	.72	.0082	.009
Water year 1943-44	3,683.0	83	0	10.1	.115	1.57

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for East Branch Fond du Lac River at Fond du Lac and Cedar Creek near Cedarburg.
Note.- Stage-discharge relation affected by ice Dec. 23 to Apr. 6.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

East Branch Fond du Lac River at Fond du Lac, Wis.

Location.- Water-stage recorder, lat. 43°45'15", long. 88°27'10", in sec. 23, T. 15 N., R. 17 E., at steel bridge on town road, an eighth of a mile west of U. S. Highway 41, half a mile south of Fond du Lac, and 2½ miles upstream from confluence with West Branch. Datum of gage is 762.82 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 75 square miles.

Records available.- March 1939 to September 1944.

Extremes.- Maximum discharge observed during year, 170 second-feet Feb. 23, by discharge measurement; minimum daily, 0.3 second-foot Aug. 14 (gage height, 0.83 foot).
1939-44: Maximum discharge, 2,140 second-feet June 23, 1940; maximum gage height, 10.74 feet Mar. 18, 1943 (ice jam), from floodmarks; no flow Jan. 17-29, 1940.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	7.1	5.7	5.4	3.1	10	145	46	19	3.4	4.9	2.4	4.9
2	5.3	4.9	4.0	3.0	9.6	110	45	17	4.6	4.0	2.1	3.1
3	5.7	4.4	4.0	3.0	9.0	85	45	15	4.6	3.4	1.7	2.3
4	7.1	4.4	4.4	3.0	8.6	60	47	15	3.7	2.6	1.5	1.7
5	7.1	5.3	4.0	3.0	8.2	40	51	14	3.4	2.6	1.5	1.5
6	5.7	6.6	7.1	3.0	7.8	27	56	11	2.6	2.4	1.4	1.5
7	5.3	9.0	19	3.0	7.5	22	53	10	2.4	2.1	1.4	1.4
8	4.9	14	8.2	3.0	7.2	16	48	9.4	2.3	2.1	1.4	1.4
9	5.7	11	8.2	3.0	6.9	12	43	9.4	3.1	2.4	1.0	1.2
10	3.0	6.6	6.0	3.0	6.7	12	39	10	4.0	1.9	.9	1.0
11	3.1	7.1	4.5	3.0	6.5	13	37	9.4	3.7	2.3	.7	1.7
12	3.5	4.4	3.5	3.0	6.2	16	40	8.9	4.0	28	.6	1.5
13	4.9	7.1	4.0	3.0	6.0	21	70	11	5.5	15	.5	4.0
14	a5.2	7.1	4.4	3.0	5.8	26	50	12	12	6.3	.3	5.2
15	a5.2	3.1	5.0	3.1	5.7	29	43	10	9.4	4.3	.6	4.3
16	a5.2	4.9	5.1	3.1	5.6	29	41	8.4	9.4	3.4	.7	3.7
17	a5.2	a7.0	5.2	3.2	5.6	27	38	7.9	14	2.8	2.1	3.4
18	a5.1	a8.0	5.3	3.3	5.7	24	36	5.8	20	2.6	2.3	2.6
19	4.0	a8.0	5.6	3.4	5.9	21	31	5.5	16	2.6	1.7	2.3
20	3.5	a7.8	6.0	3.6	6.0	20	28	5.2	16	2.3	1.0	2.1
21	4.0	a7.5	7.0	3.8	20	24	25	4.9	13	2.1	1.0	1.7
22	5.3	a7.0	6.4	4.0	100	30	21	4.9	10	1.9	1.0	1.5
23	5.3	a6.5	5.2	4.2	*170	60	21	4.9	31	1.5	1.2	1.2
24	5.3	a6.3	4.8	4.4	105	52	70	4.6	30	1.4	1.2	1.0
25	5.3	6.1	4.6	4.6	125	51	70	4.6	17	1.5	1.0	1.0
26	4.9	5.7	4.5	4.9	145	52	56	4.0	14	2.8	1.0	1.0
27	4.9	5.9	4.2	*5.2	155	52	43	3.7	11	5.2	1.2	1.2
28	4.9	6.0	3.8	7.0	160	52	30	3.7	8.9	4.3	2.6	3.7
29	4.9	6.0	3.5	10	160	51	25	3.4	7.4	3.7	2.4	4.9
30	4.4	*6.0	3.3	11	-	49	18	3.1	5.8	2.8	2.1	3.4
31	4.9	-	3.2	11	-	47	-	3.4	-	2.6	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	155.9	7.1	3.0	5.03	0.067	0.08
November	199.4	14	3.1	6.65	.089	.10
December	169.4	19	3.2	5.46	.073	.08
Calendar year 1943	15,591.0	1,350	3.0	42.7	.569	7.74
January	131.9	11	3.0	4.25	.057	.07
February	1,280.5	170	5.6	44.2	.589	.64
March	1,275	145	12	41.1	.548	.63
April	1,266	70	18	42.2	.563	.63
May	259.1	19	3.1	8.36	.111	.13
June	292.2	31	2.3	9.74	.130	.14
July	127.8	28	1.4	4.12	.055	.06
August	45.7	5.2	.3	1.47	.020	.02
September	71.4	5.2	1.0	2.38	.032	.04
Water year 1943-44	5,274.3	170	.3	14.4	.192	2.62

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for West Branch Fond du Lac River at Fond du Lac and Cedar Creek near Cedarburg.
Note.- Stage-discharge relation affected by ice Nov. 25, Nov. 27 to Dec. 1, Dec. 10, 11, 14-31, Jan. 2 to Apr. 12.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lake de Neveu near Fond du Lac, Wis.

Location.- Staff gage, lat. 43°44', long. 88°24', in sec. 30, T. 15 N., R. 18 E., at boathouse at north end of lake on farm of Nick Giebel, 4 miles southeast of Fond du Lac.

Drainage area.- 2 square miles.

Records available.- August 1936 to September 1944 (fragmentary).

Extremes.- Maximum elevation observed during year, 97.94 feet Feb. 29; minimum, 97.20 feet Aug. 25.
1936-44: Maximum elevation observed, 98.20 feet Sept. 18, 1938; minimum, 96.90 feet Aug. 15, 1936.

Remarks.- Gage heights have been reduced to datum assumed for this lake by Public Service Commission of Wisconsin.

Elevation, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	7.46	-	-	-	-	-	7.34	7.38
2	-	7.28	-	-	-	-	-	7.60	7.44	-	-	-
3	-	-	7.30	-	-	7.91	-	-	-	-	-	-
4	-	-	-	7.30	7.46	-	7.61	-	-	7.36	7.32	-
5	7.30	7.28	-	-	-	-	-	7.58	-	-	-	7.38
6	-	-	-	-	-	-	-	-	7.38	-	-	-
7	-	-	7.36	7.30	-	7.71	7.53	-	-	7.34	-	-
8	7.32	-	-	-	7.50	-	-	-	-	-	7.30	7.38
9	-	7.40	-	-	-	-	-	7.54	7.38	-	-	-
10	-	-	7.34	-	-	7.63	-	-	-	-	-	-
11	-	-	-	7.34	7.52	-	7.51	-	-	7.32	7.28	-
12	7.30	7.36	-	-	-	-	-	7.52	-	-	-	7.38
13	-	-	-	-	-	-	-	-	7.46	-	-	-
14	-	-	7.32	7.34	-	7.67	7.51	-	-	7.44	-	-
15	7.38	-	-	-	7.56	-	-	-	7.50	-	7.24	7.46
16	-	7.34	-	-	-	-	-	7.52	-	-	-	-
17	-	-	7.30	-	-	7.65	-	-	-	-	-	-
18	-	-	-	7.34	7.56	-	7.53	-	-	7.40	7.26	-
19	7.36	7.32	-	-	-	-	7.53	7.52	-	-	-	7.50
20	-	-	-	-	-	-	-	-	7.46	-	-	-
21	-	-	7.30	7.34	-	7.59	7.52	-	-	7.34	-	-
22	7.34	-	-	-	7.80	-	-	-	-	-	7.22	7.52
23	-	7.30	-	-	-	-	-	7.48	7.68	-	-	-
24	-	-	7.30	-	-	7.75	-	-	-	-	-	-
25	-	-	-	7.34	7.80	-	7.64	-	-	7.32	7.20	-
26	7.32	7.30	-	-	-	-	-	7.44	-	-	-	7.48
27	-	-	-	-	-	-	-	-	7.58	-	-	-
28	-	-	7.30	7.34	-	7.73	7.58	-	-	7.36	-	-
29	7.30	-	-	-	7.94	-	-	-	-	-	7.26	7.54
30	-	7.30	-	-	-	-	-	7.42	7.46	-	-	-
31	-	-	7.30	-	-	7.67	-	-	-	-	-	-

Note.- Add 90.00 feet to obtain elevation above datum assumed for this lake by Public Service Commission of Wisconsin.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Milwaukee River at Milwaukee, Wis.

Location.- Water-stage recorder, lat. 43°06'00", long. 87°54'30", in NE¼ sec. 5, T. 7 N., R. 22 E., near north limits of Milwaukee, 2,000 feet downstream from Port Washington Road Bridge and 6 miles upstream from mouth. Datum of gage is 607.3 feet above mean sea level, adjustment of 1912.

Drainage area.- 661 square miles.

Records available.- April 1914 to September 1944.

Average discharge.- 30 years, 402 second-feet.

Extremes.- Maximum discharge during year, 2,030 second-feet Feb. 27 (gage height, 4.52 feet); minimum, 2 second-feet May 31 (gage height, 1.54 feet), result of regulation. 1914-44: Maximum discharge, 15,100 second-feet Mar. 20, 1918 (gage height, 9.00 feet, datum then in use, from floodmark); no flow Sept. 8, 1943, result of regulation.

Remarks.- Records good except those for periods of ice effect, which are fair. Occasional regulation caused by dams above station.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 27 to June 13, Aug. 25 to Sept. 27)

Oct. 1 to Mar. 31				Apr. 1 to Sept. 30	
2.0	62	2.8	416	1.7	11
2.1	91	3.1	600	1.9	34
2.2	126	3.4	833	2.1	81
2.3	164	3.7	1,110	2.3	154
2.5	248	4.1	1,530	Note.- Same as preceding table above 2.5 feet.	

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	94	105	50	145	1,270	474	433	14	114	73	62
2	76	112	126	50	160	1,080	650	370	101	98	76	68
3	76	105	122	55	168	766	650	358	107	76	59	84
4	60	108	112	70	141	580	593	341	88	78	50	81
5	71	94	108	70	130	480	516	324	88	70	50	62
6	55	94	156	66	110	387	404	280	84	94	46	76
7	50	259	141	62	105	280	439	280	62	62	42	62
8	91	231	197	58	100	205	451	274	59	76	48	70
9	79	301	197	50	95	201	433	285	94	81	44	65
10	85	264	168	45	90	205	486	285	88	73	40	57
11	57	214	116	50	86	235	416	285	134	98	40	59
12	76	312	85	52	82	335	462	274	146	126	40	76
13	88	244	80	51	80	486	280	301	158	68	38	88
14	82	116	76	50	80	911	233	259	199	68	36	98
15	134	122	*71	50	80	1,130	587	269	129	94	57	146
16	116	201	64	54	80	1,240	718	253	285	73	62	138
17	79	75	58	60	80	1,270	687	228	312	59	62	101
18	88	130	60	68	82	1,030	607	253	312	73	59	94
19	98	141	64	72	84	833	498	224	285	65	54	88
20	82	172	70	*72	86	554	498	219	280	142	50	107
21	91	156	70	70	94	510	480	228	259	88	42	98
22	82	141	64	70	226	734	560	194	181	76	65	88
23	85	130	54	76	*259	799	695	194	370	57	88	101
24	91	156	45	82	335	850	1,300	190	451	59	50	76
25	108	141	40	98	387	1,120	1,330	194	498	68	76	62
26	102	116	43	105	766	1,120	1,320	186	404	146	50	70
27	79	126	46	156	1,390	1,000	920	190	301	98	57	78
28	105	105	50	197	1,530	791	734	122	248	81	54	142
29	102	85	54	201	1,480	665	574	101	199	88	50	142
30	91	105	54	201	-	560	486	169	154	70	50	172
31	79	-	50	205	-	498	-	115	-	57	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,640	134	50	85.2	0.129	0.15
November	4,650	312	75	155	.234	.26
December	2,746	197	40	88.6	.134	.15
Calendar year 1943	147,593	5,000	0	404	.611	8.30
January	2,616	205	45	84.4	.128	.15
February	8,531	1,530	80	294	.445	.48
March	22,125	1,270	201	714	1.08	1.24
April	18,481	1,330	233	616	.932	1.04
May	7,678	433	101	248	.375	.43
June	6,090	498	14	203	.307	.34
July	2,576	146	57	83.1	.126	.15
August	1,670	88	36	53.9	.082	.09
September	2,711	172	57	90.4	.137	.15
Water year 1943-44	82,514	1,530	14	225	.340	4.63

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 13 to Jan. 23, Feb. 5-20.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cedar Creek near Cedarburg, Wis.

Location.- Chain gage, lat. 43°19'25", long. 87°58'50", on line between secs. 14 and 23, T. 10 N., R. 21 E., at bridge on State Trunk Highway, 2 miles north of Cedarburg and 6 miles upstream from mouth.

Drainage area.- 113 square miles.

Records available.- August 1930 to September 1944.

Average discharge.- 14 years, 56.1 second-feet.

Extremes.- Maximum daily discharge during year, 400 second-feet Mar. 16 (affected by ice); maximum gage height observed, 8.14 feet Mar. 16 (affected by ice); minimum discharge observed, 3.0 second-feet Aug. 11 (gage height, 5.10 feet).
1930-44: Maximum discharge, 3,180 second-feet by discharge measurement June 23, 1940; maximum gage height observed, 12.00 feet Feb. 7, 1938 (affected by ice); minimum discharge observed, 0.2 second-foot Aug. 9-12, 1936.

Remarks.- Records good except those for period of ice effect, which are fair. Gage read once daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	11	19	6.2	20	200	54	94	21	18	8.2	9.2
2	7.4	12	19	6.5	19	125	54	73	19	15	7.4	9.2
3	6.7	13	19	6.9	18	85	49	63	19	14	5.9	7.4
4	6.7	14	19	7.3	16	68	54	63	18	14	5.2	5.9
5	5.9	15	19	7.6	15	54	63	54	15	13	5.9	4.4
6	5.9	23	23	7.6	14	43	73	54	13	12	5.9	5.2
7	5.9	29	23	7.3	13	36	84	49	11	12	5.2	5.2
8	5.9	44	21	6.8	13	31	84	54	11	13	4.4	4.4
9	5.9	38	19	6.2	12	27	84	58	15	13	3.9	3.9
10	5.9	29	17	5.8	11	26	78	58	23	12	3.5	4.4
11	5.9	25	14	5.8	11	25	78	54	23	12	3.0	4.4
12	5.9	19	11	5.8	10	34	84	49	19	15	5.2	5.2
13	6.7	17	9.0	6.0	10	50	84	49	18	17	5.2	5.9
14	7.4	17	7.6	6.2	9.8	85	111	49	41	18	5.2	12
15	7.4	18	*6.8	6.5	9.7	150	128	41	35	14	4.4	10
16	7.4	19	6.8	6.8	9.8	400	134	41	29	13	4.4	9.2
17	7.4	23	6.6	7.3	9.9	320	122	38	63	12	4.4	9.2
18	6.7	23	6.8	7.7	10	250	116	38	105	12	5.2	9.2
19	6.7	23	7.0	8.1	10	220	116	35	100	11	5.2	8.2
20	6.7	21	7.2	*8.3	11	208	111	32	78	11	4.4	8.2
21	11	21	7.4	8.8	14	195	105	32	41	10	3.9	7.4
22	10	18	7.2	9.2	20	152	105	32	29	10	3.5	7.4
23	9.2	18	6.2	9.6	*27	122	164	29	158	10	3.5	6.7
24	10	17	5.2	10	37	94	294	29	152	14	3.5	6.7
25	11	17	5.0	12	46	84	294	27	128	17	3.5	7.4
26	11	15	5.0	14	100	73	278	27	89	19	3.5	7.4
27	11	14	5.2	18	220	63	158	27	41	18	3.9	11
28	11	14	5.4	21	300	58	134	25	27	17	4.4	14
29	11	15	5.6	22	280	54	122	25	25	12	4.4	19
30	11	17	5.8	23	-	a54	111	21	23	10	4.4	18
31	11	-	5.9	23	-	54	-	18	-	8.2	6.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	249	11	5.9	8.03	0.071	0.08
November	599	44	11	20.0	.177	.20
December	344.7	23	5.0	11.1	.098	.11
Calendar year 1943	27,190.3	980	5.0	74.5	.659	8.93
January	307.3	23	5.8	9.91	.088	.10
February	1,296.2	300	9.7	44.7	.396	.43
March	3,440	400	25	111	.982	1.13
April	3,526	294	49	118	1.04	1.16
May	1,338	94	18	43.2	.382	.44
June	1,389	158	11	46.3	.410	.46
July	416.2	19	8.2	13.4	.119	.14
August	147.3	8.2	3.0	4.75	.042	.05
September	245.7	19	3.9	8.19	.072	.08
Water year 1943-44	13,298.4	400	3.0	36.3	.321	4.38

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Dec. 10 to Mar. 19.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Wolf Lake at Chicago, Ill.

Location.- Water-stage recorder, lat. 41°40'00", long. 87°32'15", in SW¼ sec. 29, T. 37 N., R. 15 E., at outlet on west shore, in Chicago. Datum of gage is 580.45 feet above mean sea level, datum of 1929 (Cook County Highway bench mark).

Records available.- December 1939 to September 1944.

Extremes.- Maximum mean hourly gage height during year, 1.84 feet Apr. 11; minimum mean hourly, 1.24 feet Feb. 5 (affected by wind).
1939-44: Maximum mean hourly gage height, that of Apr. 11, 1944; minimum gage height observed, 0.76 foot Aug. 5, 1940.

Remarks.- Mean hourly values used to determine extremes, in order to dampen effects of wind action.

Gage height, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.58	1.52	1.41	1.34	1.45	1.42	1.63	1.57	1.62	1.55	1.45	1.62
2	1.58	1.50	1.40	1.33	1.45	1.40	1.62	1.58	1.66	1.54	1.45	1.62
3	1.57	1.50	1.40	1.33	1.44	1.40	1.58	1.54	1.65	1.54	1.45	1.61
4	1.55	1.50	1.37	1.34	1.43	1.49	1.56	1.53	1.62	1.52	1.46	1.59
5	1.54	1.50	1.40	1.36	1.37	1.45	1.55	1.55	a1.62	1.50	1.48	1.58
6	1.54	1.55	1.40	1.37	1.37	1.41	1.54	1.54	a1.62	1.49	1.47	1.59
7	1.54	1.56	1.40	1.38	1.38	1.37	1.55	1.53	a1.62	1.50	1.47	1.60
8	1.54	1.60	1.39	1.40	1.38	1.43	1.56	1.56	a1.62	1.52	1.47	1.61
9	1.53	1.60	1.39	1.42	1.37	1.42	1.57	1.58	a1.62	1.60	1.47	1.60
10	1.52	1.59	1.36	1.43	1.40	1.42	1.61	1.57	a1.62	1.60	1.46	1.58
11	1.50	1.61	1.37	1.43	1.40	1.42	1.72	1.55	a1.62	1.63	1.45	1.57
12	1.50	1.58	1.36	1.43	1.39	1.43	1.69	1.53	h1.62	1.63	1.47	1.58
13	1.53	1.58	1.36	1.43	1.38	1.42	1.65	1.53	a1.62	1.64	1.46	1.59
14	1.53	1.59	1.36	1.43	1.37	1.52	1.66	1.50	a1.62	1.63	1.45	1.60
15	1.54	1.59	1.36	1.43	1.38	1.62	1.68	1.50	a1.61	1.61	1.46	1.61
16	1.60	1.57	1.37	1.43	1.38	1.62	1.62	1.56	a1.61	1.59	1.49	1.61
17	1.60	1.54	1.38	1.43	1.39	1.62	1.59	1.56	a1.61	1.56	1.50	1.62
18	1.59	1.55	1.37	1.43	1.39	1.64	1.58	1.57	a1.61	1.54	1.50	1.63
19	1.62	1.55	1.37	1.43	1.38	1.60	1.57	1.55	a1.61	1.51	1.49	1.63
20	1.62	1.54	1.37	1.42	1.37	1.56	1.56	1.53	a1.61	1.47	1.48	1.66
21	1.60	1.53	1.37	1.42	1.38	1.55	1.55	1.52	a1.60	1.45	1.48	1.67
22	1.58	1.52	1.37	1.43	1.41	1.54	1.60	1.52	a1.60	1.43	1.50	1.68
23	1.58	1.51	1.36	1.43	1.42	1.52	1.69	1.53	a1.60	1.37	1.53	1.67
24	1.59	1.49	1.36	1.44	1.42	1.50	1.67	1.57	a1.60	1.39	1.56	1.66
25	1.60	1.48	1.35	1.45	1.43	1.53	1.64	1.63	a1.60	1.40	1.56	1.66
26	1.61	1.46	1.35	1.45	1.42	1.58	1.67	1.67	a1.60	1.41	1.56	1.66
27	1.56	1.45	1.35	1.48	1.43	1.56	1.65	1.57	a1.59	1.43	1.58	1.65
28	1.56	1.45	1.35	1.49	1.45	1.59	1.64	1.65	a1.59	1.43	1.56	1.58
29	1.54	1.44	1.35	1.48	1.41	1.57	1.61	1.62	1.59	1.43	1.58	1.71
30	1.57	1.42	1.35	1.47	-	1.57	1.58	1.58	1.57	1.44	1.59	1.68
31	1.56	-	1.35	1.45	-	1.63	-	1.57	-	1.44	1.63	-

a No gage-height record; gage height interpolated.
h Float gage reading.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Little Calumet River near McCool, Ind.

Location.- Wire-weight gage, lat. 41°36'40", long. 87°09'15", in SE¼ sec. 31, T. 37 N., R. 6 W., on highway bridge ¼ mile downstream from Salt Creek, 1 mile upstream from Burns Ditch, 2¼ miles north of McCool, and 4 miles west of Porter.

Drainage area.- 160 square miles.

Records available.- October 1943 to September 1944.

Extremes.- 1943: Discharge not determined. Maximum gage height observed during period Sept. 16-30, 8.39 feet Sept. 25; minimum observed, 7.15 feet Sept. 27.
1943-44: Maximum discharge during water year, 3,400 second-feet Mar. 15 (gage height, 15.57 feet, from graph based on gage readings); minimum discharge not determined, minimum gage height observed, 6.31 feet Mar. 10.

Remarks.- Daily records Mar. 14-22 fair; monthly records poor. Gage read twice daily. Except during high water, stage affected by backwater from Lake Michigan.

Discharge, in second-feet, 1943-44

Day	1943				1944							
	Sept.	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-										
2		-										
3		-										
4		-										
5		-										
6		-										
7		-				e130						
8		-		†94								
9		-										†52
10		-	†136									
11		-						†139				
12		-									†32	
13		†103								†60		
14		-				530						
15		-				3,000						
16	†89	-				2,400						
17		-				1,100						
18		-				650						
19		-				410						
20		-				280						
21		-				230			†98			
22		-				210						
23		-			†383							
24		-										
25		-										
26		-										
27		†67				e400						
28		-										
29		-										
30		-			-							
31		-			-							

† Result of discharge measurement.
e Computed on basis of occasional discharge measurements and hydrographic comparison with records for Hart ditch at Munster, Burns ditch at Gary, and other stations on nearby streams.

Monthly discharge, in second-feet, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October		-	-	e70	0.44	0.50
November		-	-	e110	.69	.77
December		-	-	e65	.41	.47
Calendar year		-	-	-	-	-
January		-	-	e55	.34	.40
February		-	-	e100	.62	.67
March		3,000	-	455	2.84	3.28
April		-	-	e380	2.38	2.65
May		-	-	e200	1.25	1.44
June		-	-	e90	.56	.63
July		-	-	e52	.32	.37
August		-	-	e42	.26	.30
September		-	-	e45	.28	.31
Water year 1943-44		3,000	-	139	.87	11.79

e Computed on basis of occasional discharge measurements and hydrographic comparison with records for Hart ditch at Munster, Burns ditch at Gary, and other stations on nearby streams.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Burns ditch at Gary, Ind.

Location.- Wire-weight gage, lat. 41°34'25", long. 87°17'15", in N½ sec. 15, T. 36 N., R. 8 W., at Central Avenue Bridge, half a mile east of Gary and 1¼ miles downstream from Deep River.

Records available.- October 1943 to September 1944.

Extremes.- Maximum discharge during year, about 2,000 second-feet Mar. 15; maximum gage height, 16.44 feet Mar. 16 (from graph based on gage readings); minimum discharge, 3.6 second-feet July 22 (gage height, 4.44 feet, from graph based on gage readings).

Remarks.- Records good except those above 500 second-feet and those for periods of no gage-height record, which are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1		26	39	21	52	145	k640	184	288	19	9.9	22
2		29	38	21	49	124	k540	172	220	17	10	19
3	a18	28	38	21	47	115	430	165	165	16	20	a14
4		26	41	22	47	154	332	162	117	14	30	a13
5		29	38	23	52	235	258	146	82	14	22	a13
6		29	a41	23	52	280	205	132	62	14	16	a15
7		45	45	22	49	235	184	117	49	14	13	a14
8	a16	117	*44	b21	45	235	167	127	45	14	9.9	13
9		186	43	b20	43	154	162	178	52	14	8.8	13
10		172	41	b21	42	117	184	198	57	14	11	12
11		170	38	19	39	127	520	182	57	15	9.9	10
12		102	35	18	37	228	k1,460	149	58	21	8.2	35
13	a18	90	32	17	34	318	k1,250	130	65	19	7.7	22
14		74	29	16	35	k720	k1,050	115	64	a14	6.6	17
15		66	25	16	35	k1,800	k830	103	62	a12	6.6	16
16		65	22	17	33	k1,950	k630	127	58	a11	11	14
17		62	20	18	33	k1,750	k540	132	54	a10	12	14
18	a43	59	20	19	36	k1,470	430	154	50	a11	12	14
19		61	19	20	37	k1,240	332	178	120	9.9	11	15
20		61	18	*20	31	k1,100	265	129	325	7.2	10	14
21		c58	18	21	33	k955	235	103	370	5.2	9.4	12
22		54	18	21	93	k805	332	108	212	4.5	8.8	10
23		49	18	21	265	k705	k840	181	141	11	12	12
24	a31	45	17	22	348	k555	k1,160	265	96	4.9	14	11
25		43	17	26	272	505	k980	k650	70	4.5	14	9.4
26		42	17	32	250	415	k700	k630	54	12	12	8.8
27	28	42	20	53	288	430	k540	505	43	16	14	8.2
28	25	41	23	79	235	k690	415	325	34	17	22	20
29	23	41	23	71	190	k1,120	288	212	27	12	22	36
30	22	39	22	61	-	k1,120	212	164	21	10	22	27
31	23	-	21	56	-	k820	-	228	-	9.9	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	782	-	-	25.2		
November	1,951	186	26	65.0		
December	880	45	17	28.4		
Calendar year	-	-	-	-		
January	858	79	16	27.7		
February	2,802	348	31	96.6		
March	20,617	1,950	115	665		
April	16,111	1,460	162	537		
May	6,351	650	103	205		
June	3,118	370	21	104		
July	387.1	21	4.5	12.5		
August	426.8	31	6.6	13.8		
September	473.4	36	8.2	15.8		
Water year 1943-44	54,757.3	1,950	4.5	150		

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Hart ditch at Munster.
b Stage-discharge relation affected by ice.
c Backwater from Lake Michigan; discharge interpolated.
k Computed by using rate of change of stage as a factor.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Hart ditch at Munster, Ind.

Location.- Water-stage recorder and concrete control, lat. 41°33'35", long. 87°28'50", in N½ sec. 20, T. 36 N., R. 9 W., at city limit of Munster, a quarter of a mile downstream from U. S. Highway 6 and 0.4 mile upstream from mouth.

Drainage area.- 57 square miles.

Records available.- September 1942 to September 1944.

Extremes.- Maximum discharge during year, 2,420 second-feet Mar. 15 (gage height, 7.23 feet); minimum, 2.8 second-feet July 24, Aug. 21; minimum gage height, 0.49 foot Aug. 21.
1942-44: Maximum discharge, that of Mar. 15, 1944; minimum, that of July 24, Aug. 21, 1944; minimum gage height, that of Aug. 21, 1944.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	13	14	8.6	16	45	184	62	55	9.5	7.0	7.0
2	7.0	15	13	7.8	16	44	137	59	66	8.6	5.5	5.5
3	6.2	16	13	7.8	16	42	107	a52	31	8.6	4.8	4.8
4	6.2	16	13	8.6	16	143	85	a46	22	8.6	4.8	4.8
5	6.2	19	13	9.5	18	160	70	a41	19	7.8	4.8	4.8
6	6.2	21	14	7.8	18	114	64	a37	16	7.8	4.8	6.2
7	6.2	30	16	7.8	16	122	66	36	14	7.0	4.1	5.5
8	6.2	130	*16	7.8	15	62	66	57	13	12	4.1	5.5
9	5.5	88	15	7.8	14	46	64	127	16	18	4.1	4.8
10	6.2	57	15	7.8	12	33	88	83	21	9.5	4.1	4.8
11	4.8	44	13	7.8	10	33	537	64	18	9.5	4.1	4.1
12	4.8	38	12	b7.3	b9.0	62	1,050	51	19	9.5	4.1	4.8
13	7.8	32	9.5	b7.1	b8.0	64	504	45	59	8.6	4.8	5.5
14	10	27	b9.0	b7.1	10	515	235	39	31	7.0	3.4	7.3
15	12	26	b8.5	b7.3	11	2,130	190	35	24	6.2	3.4	6.2
16	31	26	b8.5	7.8	12	1,880	155	87	20	5.5	7.0	5.5
17	31	23	b8.5	7.0	12	727	117	79	18	5.5	5.5	4.8
18	20	21	b8.5	7.8	13	399	100	55	16	6.2	4.8	4.1
19	15	20	8.6	7.8	11	228	83	46	117	5.5	4.8	4.8
20	14	19	9.5	*7.8	11	155	68	38	59	4.8	4.8	6.2
21	13	18	9.5	7.8	12	140	62	35	32	4.8	4.8	5.5
22	16	16	9.5	7.8	80	122	251	93	23	4.8	4.1	5.5
23	16	16	b8.6	7.8	278	112	521	77	20	4.1	5.5	5.5
24	14	15	7.8	7.8	*160	100	605	122	15	3.4	4.8	4.8
25	13	14	7.8	9.5	110	88	309	127	13	4.1	4.8	4.8
26	12	14	7.8	11	155	88	173	239	11	15	4.8	4.8
27	12	14	8.6	20	130	183	124	102	10	10	6.2	4.8
28	13	13	9.5	36	83	354	97	60	9.5	7.0	6.2	7.0
29	13	13	10	22	59	657	74	44	9.5	7.0	6.2	6.2
30	12	14	9.5	16	-	438	62	33	9.5	6.2	5.5	6.2
31	12	-	9.5	18	-	204	-	33	-	6.2	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	359.3	31	4.8	11.6	0.204	0.23
November	828	130	13	27.6	.484	.54
December	335.7	16	7.9	10.8	.189	.22
Calendar year 1943	35,426.1	1,930	4.8	97.1	1.70	23.12
January	319.8	36	7.0	10.3	.181	.21
February	1,331	278	8.0	45.9	.805	.87
March	9,490	2,130	33	306	5.37	6.19
April	6,248	1,050	62	208	3.65	4.08
May	2,104	239	33	67.9	1.19	1.37
June	806.5	117	9.5	26.9	.472	.53
July	238.3	18	3.4	7.69	.135	.16
August	157.2	9.5	3.4	5.07	.089	.10
September	162.6	7.8	4.1	5.42	.095	.11
Water year 1943-44	22,380.4	2,130	3.4	61.1	1.07	14.61

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Burns ditch at Gary.
b Stage-discharge relation affected by ice.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

St. Joseph River at Mottville, Mich.

Location.- Float gage, lat. 41°48', long. 85°45', in NE¼ sec. 6, T. 8 S., R. 12 W., at hydroelectric plant of Michigan Gas & Electric Co. at Mottville, 5 miles downstream from Fawn River. Datum of gage is 759.5 feet above mean sea level (levels by Michigan Gas & Electric Co.).

Records available.- December 1923 to September 1944.

Average discharge.- 20 years (1924-44), 1,455 second-feet.

Extremes (regulated).- Maximum discharge during year, 5,160 second-feet Mar. 20 (gage height, 3.00 feet); minimum daily, 247 second-feet Sept. 17, 24.
1924-44: Maximum discharge, 8,250 second-feet Apr. 20, 1926 (gage height, 4.4 feet); minimum, 20 second-feet Sept. 7, 1930; minimum daily, 44 second-feet Oct. 17, 1937.

Remarks.- Records good except those for October, November, June to September, which are fair. Flow regulated by power plant. Gage read hourly.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	1,620	1,250	1,480	1,020	1,760	3,550	3,810	3,220	2,250	1,500	569	771
2	1,620	1,460	1,480	806	1,520	3,420	3,550	3,420	2,180	813	608	699
3	1,120	1,460	1,500	1,300	1,540	2,900	3,550	3,030	2,120	1,500	608	648
4	1,460	1,390	1,450	1,290	1,410	2,770	3,420	2,960	1,920	1,070	628	638
5	1,680	1,390	1,220	1,250	1,240	2,900	3,220	2,900	1,920	1,200	771	740
6	1,430	1,560	1,490	1,180	1,040	2,680	2,840	2,900	1,920	1,200	668	689
7	1,270	1,800	1,560	1,160	1,520	2,320	2,770	2,840	1,860	963	658	648
8	1,440	1,620	1,560	1,120	1,560	2,060	2,770	2,840	1,480	761	679	740
9	1,270	1,920	1,390	356	1,240	2,250	2,700	2,900	1,560	648	598	668
10	1,060	2,120	1,390	1,150	1,300	2,060	3,030	2,900	1,500	930	608	301
11	1,050	2,180	1,440	1,170	1,160	1,990	2,960	2,900	1,500	1,130	598	628
12	1,120	2,120	1,330	1,080	936	1,990	3,160	2,770	1,360	1,110	549	887
13	1,280	2,120	1,560	1,070	636	2,180	3,290	2,770	1,560	855	375	658
14	1,100	1,920	1,440	1,080	1,420	2,770	3,680	2,510	1,500	898	689	750
15	1,370	1,860	1,340	912	1,300	3,290	3,940	2,440	1,490	679	689	740
16	1,430	1,990	1,310	526	1,270	3,680	3,940	2,380	1,500	401	628	729
17	1,100	1,920	1,110	1,210	1,310	4,080	4,080	2,580	952	909	608	247
18	1,560	1,860	1,220	1,040	1,220	4,620	4,220	2,060	638	823	628	985
19	1,460	1,740	919	1,060	1,020	4.480	4,350	1,920	1,460	887	579	689
20	1,490	1,800	993	1,050	1,020	3,670	4,080	1,990	1,800	844	285	689
21	1,560	1,560	1,300	1,050	1,470	3,780	3,810	1,860	1,560	802	540	699
22	1,500	1,680	1,250	959	1,360	3,810	3,680	2,770	1,560	559	436	589
23	1,450	1,740	1,240	452	1,540	3,550	3,810	2,510	1,500	358	410	589
24	1,270	1,560	1,170	1,170	1,620	3,420	3,810	2,120	1,490	941	628	247
25	1,430	1,620	823	1,040	1,750	3,420	3,940	2,120	1,800	834	709	750
26	1,450	1,390	870	1,130	1,990	3,420	3,940	2,320	1,860	699	540	648
27	1,390	1,560	1,400	1,170	2,390	3,100	4,080	2,250	1,860	638	464	530
28	1,310	1,430	1,560	1,690	3,430	3,220	3,940	2,180	1,800	608	876	930
29	1,320	1,440	1,200	1,220	3,810	3,420	3,810	2,180	1,560	559	709	919
30	1,260	1,480	1,200	988	-	3,420	3,550	2,320	1,620	325	719	792
31	887	-	1,180	1,710	-	3,810	-	2,320	-	761	813	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	41,757	1,680	887	1,347		
November	50,940	2,180	1,250	1,698		
December	40,375	1,560	823	1,302		
Calendar year 1943	901,802	7,350	823	2,471		
January	33,409	1,710	356	1,078		
February	44,782	3,810	636	1,544		
March	98,030	4,620	1,990	3,162		
April	107,730	4,350	2,700	3,591		
May	79,180	3,420	1,860	2,554		
June	49,080	2,250	638	1,636		
July	26,205	1,500	325	845		
August	18,867	876	285	609		
September	20,237	985	247	675		
Water year 1943-44	610,592	4,620	247	1,668		

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

St. Joseph River at Niles, Mich.

Location.- Water-stage recorder, lat. 41°49'45", long. 86°15'35", in sec. 26, T. 7 S., R. 17 W., at Niles, 1 mile upstream from Dowagiac Creek. Datum of gage is 635.02 feet (revised) above mean sea level, datum of 1929.

Drainage area.- 3,620 square miles.

Records available.- October 1930 to September 1944.

Average discharge.- 12 years (1930-37, 1938-39, 1940-44), 2,815 second-feet.

Extremes.- Maximum discharge during year, 12,100 second-feet Mar. 16 (gage height, 9.12 feet); minimum daily, 1,010 second-feet Aug. 20.
1930-44: Maximum discharge, 17,300 second-feet May 26, 1943 (gage height, 11.78 feet); minimum daily, 407 second-feet (regulated) Aug. 2, 1936.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow regulated by power plants upstream.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,000	2,620	2,690	1,690	3,060	5,460	6,810	7,080	4,280	2,400	1,540	1,400
2	3,000	2,810	2,440	1,610	2,810	5,320	6,400	6,610	4,280	2,250	1,410	1,520
3	2,500	3,000	2,690	1,940	2,250	4,800	6,140	6,400	4,020	2,190	1,450	1,250
4	2,750	2,810	2,560	2,060	2,560	4,670	6,140	5,860	3,380	2,250	1,560	1,690
5	2,880	2,750	2,500	2,190	2,060	4,150	6,140	5,730	3,890	2,060	1,320	1,360
6	3,000	2,940	2,500	2,000	1,810	4,670	5,860	5,860	3,250	2,200	1,250	1,610
7	2,810	3,120	2,810	1,610	2,560	4,280	5,320	5,600	3,120	2,100	1,880	1,420
8	2,810	4,670	2,880	1,880	2,750	3,760	5,460	5,860	3,000	2,000	1,560	1,240
9	2,750	4,150	2,620	1,600	2,380	3,380	5,190	6,000	2,750	1,600	1,540	1,560
10	2,620	4,280	2,620	1,690	2,060	3,500	5,600	6,000	3,000	1,900	1,590	1,400
11	2,690	4,280	2,440	1,580	2,060	3,500	5,860	5,600	3,250	1,800	1,590	1,560
12	2,500	3,630	1,880	1,940	2,000	3,760	7,480	5,730	2,940	2,100	1,460	1,240
13	3,000	3,890	2,440	1,690	1,280	4,020	9,350	5,460	2,750	1,800	1,090	1,600
14	2,690	3,500	2,310	1,750	1,880	5,730	8,460	5,600	2,940	1,900	1,520	1,500
15	2,750	3,890	2,120	1,880	2,380	9,830	8,460	5,060	2,750	1,800	1,440	1,600
16	3,120	3,760	1,940	1,240	2,620	11,500	9,050	4,800	2,810	1,300	1,360	1,550
17	3,250	3,630	1,880	1,750	2,250	11,000	9,200	5,060	2,690	1,700	1,500	1,300
18	2,940	3,630	1,940	1,880	2,060	9,830	8,900	5,190	2,000	1,300	1,310	1,440
19	3,250	3,630	2,060	1,690	2,000	9,200	8,460	4,020	3,100	1,600	1,310	1,690
20	2,880	3,250	2,250	1,690	1,690	7,760	8,460	4,150	3,000	2,000	1,010	1,400
21	3,000	3,060	1,940	1,810	2,250	7,080	7,480	4,280	2,940	1,810	1,410	1,380
22	3,120	3,250	2,310	1,750	2,620	6,940	7,760	4,670	3,120	1,880	1,500	1,300
23	3,000	3,060	2,250	1,480	2,810	7,220	8,750	5,730	3,120	1,100	1,400	1,060
24	2,310	3,120	1,620	1,810	3,380	6,940	10,300	5,320	3,050	1,500	1,240	1,380
25	3,000	2,880	1,940	1,880	3,500	6,810	9,670	6,140	3,000	1,520	1,380	1,120
26	2,880	2,940	1,810	1,940	3,500	6,540	9,050	6,400	3,000	1,940	1,200	1,090
27	2,940	2,750	2,120	2,190	5,320	6,540	8,180	5,190	3,100	1,880	1,020	1,410
28	2,620	2,620	2,250	2,880	5,320	6,270	8,040	5,060	3,000	1,510	1,600	1,690
29	2,380	2,810	2,380	2,810	5,860	6,680	7,220	4,800	2,700	1,420	2,060	1,690
30	2,440	2,620	1,940	1,810	-	6,810	7,080	4,540	2,500	1,290	1,560	1,940
31	2,440	-	1,880	2,750	-	6,680	-	4,540	-	1,750	1,940	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	87,320	3,250	2,310	2,817	0.778	0.90
November	99,350	4,670	2,620	3,312	.915	1.02
December	70,010	2,880	1,620	2,258	.624	.72
Calendar year 1943	1,814,510	17,100	1,620	4,971	1.37	18.63
January	58,470	2,880	1,240	1,886	.521	.60
February	79,080	5,860	1,280	2,727	.753	.81
March	194,630	11,500	3,380	6,278	1.73	1.99
April	226,270	10,300	5,190	7,542	2.08	2.32
May	168,340	7,080	4,020	5,430	1.50	1.73
June	92,730	4,280	2,000	3,091	.854	.95
July	55,550	2,400	1,100	1,792	.495	.57
August	46,000	2,250	1,010	1,484	.410	.47
September	43,390	1,940	1,060	1,446	.399	.45
Water year 1943-44	1,221,140	11,500	1,010	3,336	.922	12.53

Note.- No gage-height record Oct. 6, June 18-20, June 24 to July 1, July 6-20, 23, 24, Sept. 10, 13-15; discharge computed on basis of records for station at Mottville and power-plant record at Buchanan.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

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East Branch Coldwater River at Coldwater, Mich.

Location.- Staff gage, lat. 41°55'50", long. 85°00'50", in sec. 21, T. 6 S., R. 6 W., at sewage-treatment plant in Coldwater, 2 miles upstream from mouth.

Drainage area.- 59 square miles.

Records available.- December 1937 to September 1944.

Extremes.- Maximum discharge observed during year, 178 second-feet Mar. 16, Apr. 24; maximum gage height observed, 2.37 feet Apr. 24; minimum discharge observed, 1.3 second-feet Sept. 11, 17-27; minimum gage height observed, 0.42 foot Jan. 18.
1937-44: Maximum discharge, 490 second-feet May 25, 1943 (gage height, 3.65 feet, from graph based on gage readings), from rating curve extended above 340 second-feet; minimum observed, 0.7 second-foot Oct. 17-21, 1941.

Remarks.- Records good except those for period of ice effect, which are fair. Gage read twice daily.

Rating tables, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 21, Mar. 15-19)

Oct. 1 to Mar. 19				Mar. 20 to Sept. 30			
0.4	6.7	1.6	91	0.9	1.3	1.7	75
.6	15.3	2.0	142	1.0	4.4	2.1	132
.9	30.5	2.3	190	1.1	10	2.4	183
1.2	51			1.3	27		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	14	24	11	20	61	93	150	124	25	8.3	3.6
2	20	16	24	11	19	58	86	148	111	23	8.3	3.2
3	19	18	23	11	19	56	82	142	97	22	7.6	2.9
4	18	18	22	11	19	58	76	137	92	22	8.3	2.6
5	18	20	22	10	20	59	74	137	85	21	8.3	2.3
6	17	20	23	9.2	20	59	68	134	76	20	8.3	3.2
7	17	22	24	9.6	20	59	66	129	66	20	10	4.0
8	17	25	24	10	20	57	68	130	58	18	8.3	2.9
9	16	29	24	10	*19	49	67	132	52	18	7.0	2.6
10	16	30	23	9.6	14	45	74	129	50	20	6.5	2.0
11	15	30	22	9.2	14	46	78	124	48	21	5.6	1.3
12	14	30	26	9.2	b14	60	93	120	43	21	5.6	2.6
13	14	31	29	8.4	b14	65	122	117	40	21	4.8	3.6
14	15	30	22	8.4	b15	73	118	107	38	20	4.4	2.9
15	17	32	17	8.4	b16	117	145	102	36	18	4.4	2.0
16	18	32	15	8.8	20	*176	160	96	35	18	4.1	1.7
17	18	33	15	8.4	20	163	153	90	34	16	4.0	1.3
18	18	33	15	7.5	19	152	151	85	31	15	4.4	1.3
19	18	31	14	8.4	26	150	145	78	37	15	4.4	1.3
20	16	29	14	8.8	25	145	137	78	32	16	4.4	1.3
21	15	29	12	8.4	20	122	137	92	29	16	4.4	1.3
22	17	29	12	8.4	23	107	148	104	38	15	4.0	1.3
23	15	29	12	8.8	38	110	162	113	42	14	4.4	1.3
24	14	28	12	9.6	53	109	176	129	35	13	3.6	1.3
25	15	27	12	13	54	106	174	167	30	12	2.9	1.3
26	15	27	12	22	67	103	172	170	29	16	2.6	1.3
27	14	26	12	20	73	103	167	165	28	16	2.9	1.7
28	14	25	11	19	69	106	162	156	27	14	3.6	4.0
29	14	25	10	18	63	107	153	146	27	13	3.6	3.2
30	14	25	10	14	-	103	143	137	27	11	3.6	2.6
31	14	-	10	14	-	97	-	129	-	10	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	502	20	14	16.2	0.275	0.32
November	793	33	14	26.4	.447	.50
December	547	29	10	17.6	.298	.34
Calendar year 1943	31,590	462	10	86.5	1.47	19.91
January	343.1	22	7.5	11.1	.188	.22
February	833	73	14	28.7	.486	.52
March	2,881	176	45	92.9	1.57	1.81
April	3,650	176	66	122	2.07	2.31
May	3,873	170	78	125	2.12	2.44
June	1,497	124	27	49.9	.846	.94
July	540	25	10	17.4	.295	.34
August	166.9	10	2.6	5.38	.091	.10
September	67.9	4.0	1.3	2.26	.038	.04
Water year 1943-44	15,693.9	176	1.3	42.9	.727	9.88

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Fawn River at Orland, Ind.

Location.- Staff gage, lat. 41°44'30", long. 85°10'15", N½ sec. 20, T. 38 N., R. 12 E., at bridge on State Highway 327, 1,300 feet upstream from concrete dam at Fawn River State Fish Hatchery and 0.7 mile north of Orland.
Drainage area.- 88.4 square miles.
Records available.- August 1943 to September 1944.
Extremes.- 1943: Maximum discharge during August and September, 71 second-feet Aug. 3 (gage height, 1.55 feet, from graph based on gage readings); minimum daily, 45 second-feet Sept. 4; minimum gage height, 1.20 second-feet Sept. 4.
1943-44: Maximum discharge during water year, 205 second-feet Mar. 23, 24; maximum gage height, 2.30 feet Mar. 17, from graph based on gage readings; minimum daily discharge, 6.5 second-feet Aug. 16; minimum gage height, 1.10 second-feet Feb. 11, from graph based on gage readings.
Remarks.- Records good except those during appreciable diversion, March to August 1944, and those for periods of ice effect, which are fair. Discharge includes diversion for fish hatchery at station. Occasional regulation by Nevada Mills above station. Gage read twice daily.

Discharge, in second-feet, 1943-44

1943

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	48	9	61	49	17	56	58	25	49	60
2	-	47	10	60	48	18	53	57	26	51	60
3	71	46	11	58	51	19	51	55	27	53	58
4	70	45	12	58	53	20	50	55	28	54	57
5	69	52	13	57	55	21	48	55	29	53	56
6	67	56	14	58	58	22	46	55	30	51	55
7	65	58	15	58	59	23	46	55	31	51	-
8	63	54	16	58	58	24	47	56			

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	47	57	45	50	68	170	149	183	29	9	12
2	55	47	*57	45	47	68	154	181	177	29	9	11
3	55	47	58	44	46	68	136	143	173	26	9	10
4	54	48	58	43	49	77	132	138	171	24	9	10
5	53	50	57	44	48	73	127	143	166	24	9	10
6	52	56	57	50	45	64	119	139	161	23	8	10
7	52	59	58	47	44	53	110	138	146	23	8	11
8	51	59	60	41	42	b47	99	138	121	21	7.5	11
9	50	59	60	43	45	b45	98	141	111	21	7	10
10	50	59	55	45	*38	b50	103	133	100	23	7	10
11	49	58	45	41	b23	55	119	115	94	23	7	10
12	48	57	39	35	b30	66	131	104	86	23	7	10
13	49	57	b37	33	b31	75	120	98	71	23	7	12
14	52	57	b36	37	b35	77	124	94	56	23	7	12
15	55	55	b36	40	b40	92	140	94	38	23	7	12
16	58	55	b38	41	31	*154	158	92	32	21	6.5	11
17	60	50	b40	40	23	190	161	90	20	21	7.5	11
18	59	51	b43	39	27	190	161	83	18	21	7.5	10
19	57	53	b47	39	35	177	160	68	24	21	7.5	10
20	54	55	50	39	42	183	158	68	24	21	7.5	10
21	52	56	b50	39	52	201	156	67	26	21	7.5	9
22	51	57	b46	39	70	201	161	67	28	19	7.5	9
23	50	58	b44	39	91	205	162	90	34	17	7.5	8.5
24	49	58	b42	39	81	205	162	140	35	13	8	8.5
25	48	59	b42	40	79	197	163	167	35	10	8.5	8
26	47	59	b45	41	85	195	158	175	31	12	9	8
27	47	58	b48	45	81	193	158	177	32	12	9	9.5
28	47	58	48	59	88	193	154	179	32	11	10	13
29	47	58	43	55	77	191	146	189	32	10	10	13
30	47	57	*43	48	-	182	141	189	31	10	10	12
31	47	-	45	49	-	175	-	186	-	10	12	-

* Winter discharge measurement made on this day.
b Stage discharge relation affected by ice.

Monthly discharge, in second-feet, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 3-31, 1943	1,632	71	46	56.3	0.637	0.69
September	1,629	60	45	54.3	.614	.69
October 1943	1,601	60	47	51.6	.584	.67
November	1,657	59	47	55.2	.624	.70
December	1,484	60	36	47.9	.542	.62
Calendar year	-	-	-	-	-	-
January 1944	1,324	59	33	42.7	.483	.56
February	1,475	91	23	50.9	.576	.62
March	4,010	205	45	129	1.46	1.69
April	4,241	170	98	141	1.60	1.78
May	3,975	189	67	128	1.45	1.67
June	2,288	183	18	76.3	.863	.96
July	608	29	10	19.6	.222	.26
August	253.0	12	6.5	8.16	.092	.11
September	311.5	13	8	10.4	.117	.13
Water year 1943-44	23,227.5	205	6.5	63.5	.718	9.77

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Elkhart River at Goshen, Ind.

Location.- Water-stage recorder, lat. 41°35', long. 85°50', near line between secs. 8 and 9, T. 36 N., R. 6 E., at River Avenue Bridge at Goshen, half a mile upstream from Rock Run.

Drainage area.- 573 square miles.

Records available.- April 1931 to September 1944 in reports of Geological Survey. September 1924 to September 1927 in reports of Indiana Department of Conservation.

Average discharge.- 16 years (1924-27, 1931-44), 448 second-feet.

Extremes.- Maximum discharge during year, 3,450 second-feet Mar. 16 (gage height, 7.66 feet); minimum, 68 second-feet (regulated) Sept. 23; minimum daily, 129 second-feet Aug. 10; minimum gage height, 1.62 feet (regulated) Jan. 16, 19, Feb. 9, 10.
1931-44: Maximum discharge, 5,030 second-feet May 25, 1943 (gage height, 9.46 feet), from rating curve extended above 4,000 second-feet; minimum, 28 second-feet (regulated) Sept. 5, 6, 1941; minimum daily, 35 second-feet Sept. 26, 1941; minimum gage height, 1.27 feet May 25, 30, 1932.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow regulated by three power plants above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	339	284	292	b200	284	695	1,220	a1,350	970	279	173	182
2	333	317	318	208	264	609	1,190	1,340	921	261	169	176
3	320	335	327	208	261	623	1,120	1,240	872	237	164	161
4	304	328	289	219	278	647	1,060	1,160	816	243	151	162
5	315	288	321	206	256	671	1,020	1,140	745	243	241	153
6	300	350	272	220	282	647	965	1,120	690	237	200	156
7	286	497	340	214	*270	b600	915	1,040	615	226	185	165
8	316	760	303	209	296	b520	915	1,020	564	234	173	162
9	294	743	317	191	264	b420	890	1,060	480	222	169	162
10	290	623	306	194	243	b470	915	1,120	518	220	129	147
11	291	566	326	190	b170	543	1,340	1,040	500	213	141	150
12	290	538	267	200	b150	671	2,510	990	452	197	181	152
13	286	590	280	153	b180	*866	2,670	965	447	263	157	165
14	317	599	b180	192	b220	1,220	2,180	940	442	228	156	175
15	331	534	b200	194	b230	2,750	2,060	915	434	234	164	160
16	378	520	b220	184	b230	3,270	2,300	940	406	216	167	171
17	374	*529	b230	182	236	2,590	2,240	1,020	393	220	170	158
18	385	435	b240	198	254	2,060	2,060	965	401	209	160	174
19	368	406	b240	182	232	1,830	1,940	1,020	419	207	154	154
20	357	452	*236	188	222	1,560	1,830	1,140	409	216	154	148
21	341	418	234	189	236	1,560	1,720	1,190	393	225	148	154
22	312	377	242	187	388	1,500	1,880	1,120	384	224	158	135
23	319	361	230	b185	695	1,440	2,670	1,060	405	169	160	162
24	284	358	237	204	695	1,440	2,590	1,060	393	201	162	162
25	327	354	230	207	642	1,340	a2,300	1,190	383	189	152	160
26	297	350	225	230	940	1,290	a2,000	1,290	357	184	152	147
27	265	331	231	252	1,190	1,260	a1,800	1,190	334	185	162	148
28	345	312	236	308	915	1,340	a1,600	1,120	311	195	203	193
29	314	290	b210	325	768	1,340	a1,500	1,080	324	181	185	202
30	246	337	b170	274	-	1,360	a1,400	1,030	311	178	176	187
31	337	-	b200	278	-	1,260	-	1,000	-	166	177	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	9,861	385	246	318	0.555	0.64
November	13,182	760	284	439	.766	.86
December	7,949	340	170	256	.447	.52
Calendar year 1943	283,885	4,720	170	778	1.33	18.43
January	6,571	325	153	212	.370	.43
February	11,291	1,190	150	389	.679	.73
March	38,392	3,270	420	1,238	2.16	2.49
April	50,800	2,670	890	1,693	2.95	3.30
May	33,855	1,350	915	1,092	1.91	2.20
June	15,089	970	311	503	.878	.98
July	6,702	279	166	216	.377	.43
August	5,193	241	129	168	.293	.34
September	4,883	202	135	163	.284	.32
Water year 1943-44	203,768	3,270	129	557	.972	13.24

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Cedar Creek at Auburn and Yellow River at Knox.
b Stage-discharge relation affected by ice.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Kalamazoo River near Battle Creek, Mich.

Location.- Water-stage recorder, lat. 42°20'45", long. 85°15'45", in NE¼ sec. 32, T. 1 S., R. 8 W., half a mile upstream from Wabascon Creek and 3 miles downstream from city of Battle Creek. Datum of gage is 797.00 feet above mean sea level, datum of 1929.

Drainage area.- 849 square miles.

Records available.- July 1937 to September 1944.

Extremes.- Maximum discharge during year, 2,840 second-feet Feb. 28 (gage height, 6.98 feet); minimum, 176 second-feet (regulated) Sept. 24; minimum daily, 225 second-feet (regulated) Sept. 26; minimum gage height, 1.70 feet Oct. 9.

1937-44: Maximum discharge, 4,020 second-feet June 4, 1943 (gage height, 8.00 feet); minimum, 50 second-feet (regulated) Sept. 22, 1939; minimum daily, 143 second-feet (regulated) Aug. 21, 1941; minimum gage height, 1.51 feet Feb. 22, 1940.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Slight regulation by power plants above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	610	587	600	450	688	2,390	1,550	885	635	486	304	376
2	735	587	600	450	688	1,940	1,600	885	652	480	275	376
3	403	715	618	500	652	1,540	1,500	925	765	433	327	350
4	553	697	600	500	635	1,260	1,350	925	705	453	330	321
5	537	678	582	478	565	1,010	1,250	845	688	373	314	327
6	547	722	652	436	548	925	1,200	905	652	435	297	359
7	531	832	635	442	618	905	1,100	905	600	394	327	336
8	564	1,030	670	422	548	825	1,050	885	600	394	354	366
9	476	1,020	670	400	*618	705	1,100	990	530	389	308	333
10	511	1,130	670	440	548	745	1,250	1,080	618	376	366	300
11	505	1,130	600	420	416	705	1,440	990	565	403	372	318
12	505	1,030	600	*419	b400	968	1,540	925	565	389	384	340
13	546	978	530	425	b400	1,040	1,740	905	600	417	411	376
14	530	860	500	456	b420	1,260	1,740	825	577	372	345	384
15	587	803	470	410	460	*1,590	1,740	745	577	424	280	353
16	635	792	450	413	512	1,790	1,690	725	588	331	296	313
17	653	792	450	478	530	2,000	1,690	745	570	398	324	306
18	689	742	450	374	530	2,200	1,590	765	548	319	345	316
19	681	723	450	419	456	2,100	1,490	688	715	345	338	299
20	681	684	b450	446	530	1,900	1,260	688	840	304	314	272
21	646	691	b450	428	495	1,500	1,170	705	813	418	314	284
22	646	691	b440	432	565	1,300	1,120	670	767	304	347	297
23	613	645	420	413	688	1,200	1,120	745	1,030	314	336	272
24	613	652	400	450	990	1,170	1,170	805	1,270	366	323	257
25	566	688	400	419	1,220	1,100	1,260	865	1,200	264	345	267
26	628	635	400	460	1,640	1,100	1,260	925	1,100	340	350	225
27	580	600	460	582	1,840	1,220	1,300	925	1,000	354	266	242
28	488	635	478	785	2,840	1,170	1,120	968	794	354	314	281
29	571	618	478	825	2,560	1,300	990	865	652	327	300	314
30	540	635	495	865	-	1,400	925	725	550	354	303	276
31	540	-	470	825	-	1,500	-	670	-	337	364	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	17,910	735	403	578	0.681	0.79
November	23,022	1,130	587	767	.903	1.01
December	16,138	670	400	521	.614	.71
Calendar year 1943	379,269	4,020	400	1,039	1.22	16.63
January	15,262	865	374	492	.580	.67
February	23,600	2,840	400	814	.959	1.03
March	41,758	2,390	705	1,347	1.59	1.83
April	40,305	1,740	925	1,344	1.58	1.76
May	26,099	1,080	670	842	.992	1.14
June	21,766	1,270	530	726	.855	.95
July	11,647	486	264	376	.443	.51
August	10,173	411	266	328	.386	.44
September	9,436	384	225	315	.371	.41
Water year 1943-44	257,116	2,840	225	703	.828	11.25

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Dec. 14-19, 23-26, Dec. 31 to Jan. 4, Jan. 9-11, Mar. 18-23, 25, Mar. 29 to Apr. 10; discharge computed on basis of weather records and records for stations at Comstock and near Allegan.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Kalamazoo River at Comstock, Mich.

Location.- Wire-weight gage, lat. 42°17'10", long. 85°30'50", in NE¼ sec. 19, T. 2 S., R. 10 W., at highway bridge at Comstock, a quarter of a mile downstream from Comstock Creek. Datum of gage is 759.13 feet above mean sea level, datum of 1929.

Drainage area.- 1,010 square miles.

Records available.- April to August 1931, October 1932 to September 1944.

Average discharge.- 10 years (1934-44), 829 second-feet.

Extremes.- Maximum discharge observed during year, 3,400 second-feet Feb. 29 (gage height, 4.95 feet); minimum observed, 325 second-feet Aug. 3; minimum gage height observed, 1.15 feet May 7.

1931, 1932-44: Maximum discharge, 4,770 second-feet June 5, 1943 (gage height, 6.41 feet, from graph based on gage readings); minimum observed, 199 second-feet Oct. 14, 1934; minimum gage height observed, 0.56 foot May 4, 1931.

Remarks.- Records fair. Gage read twice daily. Flow regulated by power plants above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-8, Oct. 13 to Nov. 9, May 24 to Sept. 30)

0.8	310	2.0	1,060
1.1	460	4.0	2,560
1.4	640	4.9	3,310

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	745	815	885	627	1,060	3,040	1,740	1,440	871	608	385	661
2	710	885	878	640	1,020	2,640	1,880	1,210	815	471	385	668
3	682	990	878	675	955	2,110	1,700	885	808	493	335	504
4	634	1,170	871	675	913	1,770	1,550	899	836	533	360	493
5	620	1,320	871	675	878	1,510	1,440	955	836	476	385	445
6	640	1,360	864	668	850	1,320	1,360	920	808	455	360	466
7	627	1,440	878	654	836	1,140	1,280	493	780	515	365	471
8	620	1,470	885	668	829	1,060	1,280	527	773	539	385	455
9	a627	1,510	892	668	815	1,020	1,440	1,210	745	545	405	400
10	a627	1,620	899	640	773	990	1,550	1,400	710	539	420	425
11	a627	1,580	899	627	710	1,020	1,660	1,440	724	545	430	460
12	a634	1,510	885	620	668	1,140	1,880	1,360	696	594	430	582
13	627	1,400	836	594	647	1,550	1,960	1,210	682	563	425	614
14	634	1,280	745	594	647	1,740	2,110	1,550	696	498	415	601
15	682	1,210	703	601	654	1,880	2,260	1,660	696	488	430	575
16	787	1,140	717	620	724	2,110	2,260	1,550	654	476	360	504
17	864	1,100	731	675	773	2,410	2,180	885	614	482	370	515
18	899	990	745	752	759	2,340	2,110	990	588	476	380	498
19	913	955	738	815	745	2,340	2,040	1,020	527	385	400	488
20	906	955	745	843	731	2,410	1,880	955	682	385	510	482
21	892	955	773	990	759	2,340	1,740	955	955	400	551	450
22	850	990	745	955	864	1,810	1,510	1,020	1,060	425	545	430
23	829	955	668	794	920	1,550	1,440	1,060	1,210	430	563	430
24	836	955	640	640	990	1,400	1,470	1,140	1,210	405	588	450
25	829	955	594	627	1,100	1,360	1,510	1,170	1,210	405	640	435
26	829	955	601	738	1,620	1,320	1,580	1,210	1,280	425	682	395
27	815	955	710	1,020	2,180	1,320	1,580	1,170	1,170	471	539	405
28	815	920	717	1,100	2,720	1,470	1,810	1,210	588	440	557	445
29	808	920	696	1,170	3,310	1,580	1,810	1,140	661	440	545	498
30	801	913	668	1,140	-	1,620	1,440	1,400	703	385	575	563
31	787	-	654	1,100	-	1,700	-	1,470	-	365	608	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	23,196	913	620	748	0.741	0.85
November	34,173	1,620	815	1,139	1.13	1.26
December	24,011	899	594	775	.767	.88
Calendar year 1943	496,489	4,770	594	1,360	1.35	18.27
January	23,605	1,170	594	761	.753	.87
February	30,450	3,310	647	1,050	1.04	1.12
March	53,010	3,040	990	1,710	1.69	1.95
April	51,450	2,260	1,280	1,715	1.70	1.90
May	35,504	1,660	493	1,145	1.13	1.30
June	24,588	1,280	527	820	.812	.91
July	14,657	608	365	473	.468	.54
August	14,328	682	335	462	.457	.53
September	14,808	668	395	494	.489	.55
Water year 1943-44	343,780	3,310	335	939	.930	12.66

a No gage-height record; discharge computed on basis of weather records and records for stations at Allegan and Battle Creek.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Kalamazoo River at Calkins Dam, near Allegan, Mich.

Location.- Water-stage recorder, lat. 42°34', long. 85°57', in sec. 15, T. 2 N., R. 14 W., at hydroelectric plant of city of Allegan, 1 mile upstream from Swan Creek and 8 miles northwest of Allegan. Datum of gage is at mean sea level (levels by city of Allegan).

Drainage area.- 1,540 square miles.

Records available.- April 1929 to September 1936, October 1937 to September 1944.

Average discharge.- 13 years (1930-36, 1937-44), 1,240 second-feet.

Extremes.- Maximum daily discharge during year, 3,800 second-feet Mar. 1; maximum gage height, 604.35 feet Feb. 27 (discharge not determined); minimum daily discharge, 498 second-feet July 30.

1929-36, 1937-44: Maximum daily discharge, 7,020 second-feet Mar. 16, 1943; maximum gage height, 605.63 feet Aug. 27, 1940 (discharge not determined); minimum daily discharge, 73 second-feet Aug. 31, 1941; minimum gage height, 594.32 feet Sept. 21, 22, 1941.

Remarks.- Records good except those above 2,000 second-feet, which are fair. Discharge regulated by city of Allegan power plant.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	904	1,020	1,220	889	1,620	3,800	2,800	2,530	1,460	1,310	694	679
2	910	1,310	1,180	892	1,500	3,730	2,600	2,110	1,370	1,130	681	690
3	817	1,360	1,300	1,060	1,320	3,190	3,020	2,200	1,300	954	692	572
4	876	1,130	1,260	1,040	1,460	3,320	2,610	1,530	1,170	860	719	783
5	882	1,660	1,210	914	1,500	2,470	2,590	1,550	1,280	900	730	832
6	920	1,290	1,160	889	1,120	2,300	2,290	1,570	1,200	924	590	886
7	934	1,660	1,180	914	1,500	1,750	2,210	1,370	1,320	938	697	877
8	1,040	2,270	1,250	946	941	1,860	2,360	2,100	985	928	722	883
9	880	1,800	1,150	848	1,130	1,790	1,780	2,010	1,040	898	716	890
10	912	2,370	1,260	934	1,180	1,710	2,290	1,990	1,630	978	700	864
11	1,190	2,130	1,300	914	1,120	1,630	2,630	1,820	1,130	925	706	900
12	912	2,140	1,340	947	1,010	1,390	2,560	2,020	1,030	926	713	926
13	980	2,160	1,230	910	1,010	2,590	2,700	2,240	1,050	881	513	772
14	1,120	1,800	1,170	907	987	2,570	2,640	1,600	1,170	891	770	767
15	964	2,230	1,110	900	998	3,270	2,860	1,950	1,370	878	790	746
16	1,350	1,740	1,080	876	1,020	3,580	2,940	1,360	1,020	662	768	732
17	1,140	1,500	942	893	1,240	3,640	3,480	1,480	1,030	853	742	890
18	1,360	1,660	939	894	1,130	3,290	2,760	1,670	1,330	868	742	842
19	1,280	1,480	981	980	1,110	3,230	3,830	1,460	1,250	858	615	858
20	1,420	1,510	958	888	1,030	3,130	2,660	1,630	984	896	822	880
21	1,410	1,350	1,050	874	1,140	2,960	2,600	1,230	975	844	920	890
22	1,180	1,490	1,140	880	1,170	2,910	2,570	2,560	1,330	820	798	880
23	1,290	1,460	1,000	892	1,340	2,540	2,040	2,090	1,860	628	584	872
24	1,530	1,350	1,130	890	1,590	2,320	2,260	1,580	1,690	842	719	740
25	1,120	1,120	963	926	1,820	2,150	2,380	1,670	1,650	843	835	794
26	1,360	1,370	806	1,040	2,680	1,840	2,580	1,610	2,110	880	816	705
27	1,200	1,470	922	934	3,700	2,670	2,520	1,830	1,830	838	707	696
28	1,110	1,130	928	1,120	2,990	2,460	2,310	1,400	1,870	840	738	712
29	1,250	1,290	1,050	1,390	3,300	2,770	2,630	2,200	1,560	842	722	669
30	1,110	1,130	1,070	1,660	-	3,310	2,100	1,530	1,370	498	715	860
31	1,290	-	994	1,630	-	2,820	-	1,640	-	596	682	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	34,641	1,530	817	1,117	0.725	0.84
November	47,380	2,370	1,020	1,579	1.03	1.15
December	34,273	1,340	806	1,106	.718	.83
Calendar year 1943	723,664	7,020	806	1,983	1.29	17.49
January	30,671	1,660	848	989	.642	.74
February	43,656	3,700	941	1,505	.977	1.05
March	82,990	3,800	1,390	2,677	1.74	2.01
April	76,600	3,480	1,780	2,553	1.66	1.85
May	55,530	2,560	1,230	1,791	1.16	1.34
June	40,364	2,110	975	1,345	.873	.97
July	26,919	1,310	498	868	.564	.65
August	22,358	920	513	721	.468	.54
September	24,087	926	572	803	.521	.58
Water year 1943-44	519,469	3,800	498	1,419	.921	12.55

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Battle Creek at Battle Creek, Mich.

Location.- Staff gage, lat. 42°19'55", long. 85°09'15", in sec. 5, T. 2 S., R. 7 W., 350 feet upstream from Verona Street Bridge in city of Battle Creek and 3 miles upstream from mouth.

Drainage area.- 241 square miles.

Records available.- October 1930 to July 1931, October 1932 to September 1944.

Average discharge.- 10 years (1934-44), 204 second-feet.

Extremes.- Maximum discharge observed during year, 1,470 second-feet Feb. 28 (gage height, 2.55 feet); minimum observed, 48 second-feet Aug. 9 to Sept. 3, Sept. 18, 19; minimum gage height observed, 0.50 foot Oct. 8 (gates in dam open).

1930-31, 1932-44: Maximum discharge, 2,580 second-feet June 3, 1943 (gage height, 3.52 feet, from floodmark); minimum, 22 second-feet Aug. 14, 1934; minimum gage height, about -0.5 foot in July 1936, Aug. 31, 1939, due to opening of gates at dam forming control.

Remarks.- Records good except those for periods of gate operation, ice effect, or no gage-height record, which are fair. Gage read twice daily.

Rating table, water year 1943-44, except periods of ice effect and gate operation
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Feb. 26, July 1-21)

0.6	48	1.2	294
.7	78	1.5	481
.8	112	1.9	800
1.0	193	2.5	1,370

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	123	131	95	193	1,030	757	257	150	102	63	48
2	e110	142	131	95	180	890	757	241	163	98	57	51
3	e100	163	131	95	176	890	593	241	180	98	54	47
4	92	167	131	95	163	935	481	241	184	85	54	57
5	92	212	127	95	159	980	413	241	172	88	54	60
6	92	227	127	95	163	1,080	363	236	159	81	54	63
7	92	246	123	98	159	845	340	231	139	75	54	72
8	e100	257	120	98	146	632	317	231	127	72	54	72
9	e105	268	127	98	*142	407	334	236	123	69	48	72
10	109	273	127	98	b130	278	370	252	120	66	48	66
11	112	273	135	92	b120	217	447	273	120	66	48	57
12	109	273	142	85	b110	231	518	278	120	66	48	63
13	109	273	146	85	b110	283	593	257	116	66	48	85
14	112	262	a140	85	b110	388	673	236	112	66	48	78
15	127	252	a130	85	b110	*518	714	207	112	66	48	72
16	142	217	a120	85	123	632	714	207	109	66	48	72
17	150	207	a120	88	127	935	632	212	105	66	48	66
18	163	198	a120	88	135	890	554	212	105	66	48	54
19	172	189	a120	95	139	800	518	212	112	66	48	51
20	159	184	a120	98	139	673	440	212	109	66	48	57
21	159	172	a110	98	139	554	376	203	102	66	48	60
22	146	172	102	102	154	447	340	193	112	66	48	60
23	139	163	a100	105	184	340	322	203	159	66	48	60
24	131	154	a100	109	376	317	322	222	189	66	48	60
25	131	146	a100	120	593	322	334	227	193	66	48	60
26	131	139	127	123	845	322	351	222	193	72	48	66
27	131	135	127	146	1,120	345	340	212	184	78	48	66
28	127	131	120	172	1,370	370	340	184	159	72	48	78
29	123	131	112	180	1,220	433	334	172	139	72	48	85
30	120	131	105	180	-	481	289	163	123	66	48	72
31	120	-	98	193	-	593	-	154	-	66	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,817	172	92	123	0.510	0.59
November	5,880	273	123	196	.813	.91
December	3,769	146	98	122	.506	.58
Calendar year 1943	131,709	2,340	88	361	1.50	20.32
January	3,376	193	85	109	.452	.52
February	8,835	1,370	110	305	1.27	1.37
March	18,058	1,080	217	583	2.42	2.79
April	13,876	757	289	463	1.92	2.14
May	6,868	278	154	222	.921	1.06
June	4,190	193	102	140	.581	.65
July	2,250	102	66	73	.303	.35
August	1,548	63	48	50	.207	.24
September	1,940	85	48	65	.270	.30
Water year 1943-44	74,407	1,370	48	203	.842	11.50

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Kalamazoo River near Battle Creek and at Comstock.

b Stage-discharge relation affected by ice.

e Gates in dam open for part of day; discharge computed on basis of weather records and records for Kalamazoo River near Battle Creek and at Comstock.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Grand River at Jackson, Mich.

Location.- Water-stage recorder, lat. 42°17'05", long. 84°24'30", in sec. 22, T. 2 S., R. 1 W., 1 mile north of Jackson and 2¼ miles upstream from Portage River. Datum of gage is 900.00 feet above mean sea level (Fargo Engineering Co. bench mark).

Drainage area.- 174 square miles.

Records available.- April 1935 to September 1944.

Extremes.- Maximum discharge during year, 736 second-feet June 23 (gage height, 12.30 feet); minimum, 23 second-feet Aug. 21; minimum daily, 37 second-feet Sept. 10.
1935-44: Maximum discharge, 1,070 second-feet (revised) June 25, 1937 (gage height, 13.50 feet); minimum, 9.2 second-feet Aug. 22, 1936; minimum daily, 12 second-feet Aug. 23, 1936.

Remarks.- Records good except those for June and July, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	72	82	55	115	249	207	223	103	208	50	48
2	98	88	86	54	120	249	201	162	99	159	50	46
3	88	82	86	59	132	240	201	156	99	128	48	41
4	92	84	84	60	123	240	196	152	87	96	68	42
5	92	92	81	77	117	198	190	174	90	77	60	43
6	93	106	96	75	106	196	181	180	82	68	50	60
7	92	148	98	72	117	180	187	208	74	60	55	42
8	60	182	98	71	134	159	187	223	70	55	58	42
9	56	278	101	63	128	152	183	228	68	60	56	41
10	50	287	103	71	117	149	214	223	80	56	55	37
11	54	278	91	70	98	157	258	221	103	55	55	41
12	55	192	82	64	117	183	336	225	103	59	59	65
13	58	185	62	64	105	192	346	249	122	52	41	48
14	59	176	90	59	107	217	346	226	139	52	47	44
15	60	178	82	65	111	258	356	228	115	51	46	46
16	86	171	78	59	107	306	356	219	109	46	44	46
17	72	166	75	63	107	336	356	225	103	43	46	39
18	78	157	71	63	106	336	346	223	105	46	44	44
19	80	156	70	44	100	316	336	208	197	120	42	44
20	80	150	72	44	103	306	316	199	127	144	38	47
21	81	142	72	44	110	296	316	198	114	135	44	43
22	81	140	67	46	139	278	306	187	117	123	45	44
23	78	139	68	43	170	268	296	157	411	103	42	42
24	71	134	61	47	174	228	296	173	326	104	50	38
25	81	127	58	51	183	199	296	169	306	81	46	42
26	75	123	58	55	248	190	287	162	326	86	43	42
27	71	122	58	101	240	203	278	161	326	70	39	46
28	70	115	59	107	240	203	268	115	336	67	51	117
29	68	109	54	117	249	210	258	117	326	60	47	50
30	64	86	59	109	-	214	230	112	296	48	48	50
31	63	-	58	122	-	207	-	106	-	50	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,307	101	50	74.4	0.428	0.49
November	4,465	287	72	149	.845	.94
December	2,360	103	54	76.1	.437	.50
Calendar year 1943	72,228	971	50	198	1.14	15.41
January	2,094	122	43	67.5	.388	.45
February	4,023	249	98	139	.799	.86
March	7,115	336	149	230	1.32	1.52
April	8,130	356	181	271	1.56	1.74
May	5,809	249	106	187	1.07	1.23
June	4,959	411	68	165	.948	1.06
July	2,562	208	43	82.6	.475	.55
August	1,519	68	38	49.0	.282	.33
September	1,420	117	37	47.3	.272	.30
Water year 1943-44	46,763	411	37	128	.736	9.97

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Grand River at Lansing, Mich.

Location.- Water-stage recorder, lat. 42°45'20", long. 84°34'55", in SW¼ sec. 5, T. 4 N., R. 2 W., at northwest limits of Lansing, 3½ miles downstream from Cedar River.

Drainage area.- 1,230 square miles.

Records available.- November 1934 to September 1944. March 1901 to August 1906 at site at Seymour Street Bridge, 1¾ miles upstream.

Extremes.- Maximum discharge during year, 6,220 second-feet Feb. 27 (gage height, 9.67 feet); minimum, 16 second-feet (regulated) Sept. 24; minimum daily, 76 second-feet Sept. 24.

1934-44: Maximum discharge, 8,130 second-feet June 3, 1943 (gage height, 11.26 feet); minimum, 6 second-feet (regulated) Aug. 26, 1941; minimum daily, 20 second-feet Aug. 25, 1941.

Remarks.- Records good. Flow regulated by power plants above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-25, June 4 to Aug. 9)

1.0	67	2.5	470	6.0	2,560
1.3	117	3.0	685	7.0	3,410
1.5	159	3.5	930	9.1	5,560
1.7	209	4.0	1,220		
2.0	295	5.0	1,840		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	380	410	361	206	618	3,880	1,980	1,190	905	930	246	188
2	355	440	594	186	591	2,560	1,840	1,280	888	703	189	184
3	324	478	442	215	653	1,980	1,640	1,250	822	628	289	205
4	294	596	413	226	593	1,700	1,520	1,060	782	461	213	104
5	363	527	406	224	622	1,310	1,370	1,070	728	324	226	112
6	348	595	429	228	600	1,370	1,250	1,220	740	427	229	204
7	376	755	497	242	657	1,280	1,220	1,050	556	311	265	148
8	372	980	528	226	500	880	1,520	1,340	502	334	843	127
9	376	1,220	564	214	500	844	1,290	1,450	515	234	243	117
10	297	1,160	528	195	482	907	1,840	1,520	383	288	248	76
11	294	1,160	468	171	275	1,020	2,260	1,430	417	163	189	174
12	273	1,130	388	201	186	809	2,880	1,560	484	240	192	153
13	187	1,130	274	202	315	1,240	2,960	1,170	487	214	171	191
14	278	1,040	265	202	500	1,310	2,720	1,160	466	222	197	152
15	260	1,070	362	166	462	1,490	2,640	1,100	435	244	194	139
16	422	930	329	179	395	2,480	2,640	1,050	467	236	197	225
17	455	830	349	172	398	2,800	2,640	1,100	398	183	205	134
18	470	830	337	216	417	2,720	2,400	1,200	351	214	168	201
19	566	755	289	180	394	2,330	2,190	1,340	512	207	151	161
20	540	730	312	204	344	1,630	1,910	1,280	1,000	199	113	126
21	547	708	306	183	367	1,770	1,840	1,300	928	189	130	187
22	438	744	295	211	545	1,490	1,770	1,570	961	233	152	128
23	426	655	261	184	884	1,520	1,370	1,850	1,260	257	168	138
24	581	640	242	218	1,590	1,640	1,770	1,840	1,580	366	156	111
25	467	603	217	194	1,990	1,700	1,840	1,620	1,770	296	144	162
26	462	570	202	272	2,900	1,580	1,770	1,660	2,120	280	123	121
27	361	538	246	397	5,560	1,580	1,700	1,560	1,910	246	105	122
28	449	517	212	731	5,450	1,580	1,640	1,450	1,280	319	147	322
29	392	528	259	972	3,980	2,260	1,580	1,240	1,130	257	191	151
30	370	417	245	906	-	2,640	1,060	983	930	228	157	263
31	417	-	243	813	-	2,330	-	1,040	-	248	217	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	12,140	581	187	392	0.319	0.37
November	22,686	1,220	410	756	.615	.69
December	10,863	594	202	350	.285	.33
Calendar year 1943	489,670	8,010	187	1,342	1.09	14.82
January	9,136	972	166	295	.240	.28
February	32,768	5,560	186	1,130	.919	.99
March	54,630	3,880	809	1,762	1.43	1.65
April	57,050	2,960	1,060	1,902	1.55	1.73
May	40,933	1,850	983	1,320	1.07	1.23
June	25,707	2,120	351	857	.697	.78
July	9,681	930	163	312	.254	.29
August	6,458	843	105	208	.169	.19
September	4,826	322	76	161	.131	.15
Water year 1943-44	286,878	5,560	76	784	.637	8.68

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Grand River at Grand Rapids, Mich.

Location.- Water-stage recorder, lat. 42°57'10", long. 85°41'15", at municipal sewage-pumping plant near west limits of Grand Rapids, Kent County, three-quarters of a mile upstream from Plaster Creek. Datum of gage is 589.01 feet above mean sea level (levels by city of Grand Rapids).
Drainage area.- 4,900 square miles.
Records available.- October 1930 to September 1944, March 1901 to December 1905, and January 1906 to September 1918 (gage heights only) at site at Fulton Street Bridge in Grand Rapids.
Average discharge.- 14 years (1930-44), 3,076 second-feet.
Extremes.- Maximum discharge during year, 14,200 second-feet Mar. 1 (gage height, 8.48 feet); minimum observed, 842 second-feet Aug. 15 (gage height, -4.55 feet).
1930-44: Maximum discharge, 34,000 second-feet Mar. 20, 1942 (gage height, 15.13 feet); minimum observed, 341 second-feet Aug. 17, 1936; minimum daily, 381 second-feet Aug. 17, 1936.
A stage of 19.3 feet occurred at Fulton Street gage Mar. 27, 1904 (discharge, 53,000 second-feet).
Remarks.- Records good except those for periods of ice effect, which are fair. Flow slightly regulated by power plants above station. City of Grand Rapids diverts about 30 second-feet above station, most of which is returned to river 1 mile below.
Cooperation.- Gage-height record furnished by city of Grand Rapids.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

-4.5	857	0.0	3,790
-4.0	1,030	2.0	5,720
-3.0	1,480	4.0	7,820
-2.0	2,160	6.0	10,300
-1.0	2,940	8.5	14,200

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,600	1,810	2,540	1,480	2,940	14,000	10,200	4,920	3,700	2,300	1,150	1,150
2	1,670	1,950	2,460	1,480	2,540	13,300	10,600	4,620	3,790	2,020	1,200	1,200
3	1,480	2,090	1,740	1,480	2,540	11,700	10,300	4,330	3,610	1,880	1,110	1,200
4	1,740	2,230	1,670	1,430	2,300	9,930	9,540	4,330	3,100	1,880	1,030	1,110
5	1,810	2,230	2,020	1,480	2,160	7,710	8,300	4,330	2,940	1,670	1,110	1,150
6	1,540	2,230	2,090	1,540	2,300	6,220	7,270	4,330	2,860	1,740	1,010	1,200
7	1,480	2,300	2,160	1,430	2,230	5,720	6,520	3,970	2,380	1,670	1,010	1,280
8	1,480	2,940	2,160	1,450	2,230	5,220	6,120	4,240	2,380	1,430	1,010	1,200
9	1,480	3,180	2,230	1,500	2,020	5,420	5,720	4,520	2,230	1,150	1,070	1,150
10	1,670	3,340	2,230	1,450	2,020	6,320	5,820	4,620	2,230	1,150	1,010	1,200
11	1,880	3,610	2,230	1,450	1,430	6,220	6,020	5,020	2,300	1,200	1,110	1,070
12	1,670	3,610	2,090	1,400	1,650	5,320	6,520	4,920	2,230	1,600	1,200	1,070
13	1,430	3,520	1,800	1,350	1,850	5,320	7,270	4,820	2,230	1,540	955	1,200
14	1,480	3,340	2,000	1,400	1,850	4,920	7,710	4,520	2,540	1,380	857	1,150
15	1,540	3,340	1,950	1,350	1,750	5,220	8,180	4,240	2,540	1,330	888	1,240
16	1,670	3,100	1,880	1,330	1,650	5,920	8,780	3,880	2,380	1,240	1,070	1,240
17	1,880	2,940	1,810	1,380	1,700	7,160	8,660	3,700	2,090	1,200	1,110	1,240
18	2,020	2,940	1,880	1,380	1,750	8,300	8,540	3,520	1,880	1,240	1,070	1,200
19	2,020	2,780	1,880	1,430	1,700	8,420	8,300	3,610	1,950	1,240	1,010	1,150
20	2,230	2,780	1,880	1,480	1,670	7,940	7,710	3,790	1,880	1,150	1,030	1,150
21	2,090	2,620	1,810	*1,480	1,810	7,050	7,050	3,790	1,600	1,110	1,070	1,110
22	2,020	2,620	1,800	1,380	2,160	6,020	6,520	4,150	2,020	1,070	1,070	1,200
23	2,020	2,620	1,800	1,480	3,100	*5,620	6,120	5,320	3,260	1,010	1,110	1,110
24	2,460	2,620	1,800	1,380	3,970	5,420	6,220	5,820	3,880	1,150	1,070	1,010
25	2,460	2,460	1,750	1,480	5,520	5,520	6,120	5,620	3,880	1,150	1,030	1,030
26	2,020	2,160	1,700	1,600	7,380	5,520	6,220	5,620	3,610	1,240	972	1,070
27	1,670	2,380	1,670	1,880	10,100	5,820	6,320	5,220	3,520	1,330	955	1,110
28	1,540	2,230	1,670	2,380	11,400	5,520	6,120	5,120	3,700	1,330	990	1,280
29	1,740	2,160	1,600	2,940	13,000	5,920	5,820	4,920	3,340	1,240	1,070	1,280
30	1,740	2,380	1,430	2,860	-	8,060	5,320	4,820	2,700	1,150	1,110	1,380
31	1,600	-	1,540	3,020	-	9,280	-	3,970	-	1,200	1,110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	55,130	2,460	1,430	1,778	0.363	0.42
November	80,510	3,610	1,810	2,684	.548	.61
December	59,270	2,540	1,430	1,912	.390	.45
Calendar year 1943	2,133,950	28,400	1,380	5,846	1.19	16.21
January	50,550	3,020	1,330	1,631	.333	.38
February	98,720	13,000	1,430	3,404	.695	.75
March	220,030	14,000	4,920	7,098	1.45	1.67
April	219,910	10,600	5,320	7,330	1.50	1.67
May	140,600	5,820	3,520	4,535	.926	1.07
June	82,750	3,880	1,600	2,758	.563	.63
July	42,990	2,300	1,010	1,387	.283	.33
August	32,567	1,200	857	1,051	.214	.25
September	35,130	1,380	1,010	1,171	.239	.27
Water year 1943-44	1,118,157	14,000	857	3,055	.623	8.50

* Winter discharge measurement made on this day.
Note.- Discharge July 22, 23, Aug. 3-30, Sept. 23-26 computed from graph based on gage readings.
Stage-discharge relation affected by ice Dec. 13-15, 22-26, Jan. 8-15, Feb. 12-19.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cedar River at East Lansing, Mich.

Location.- Water-stage recorder and concrete dam, lat. 42°43'40", long. 84°28'40", in SW¼ sec. 18, T. 4 N., R. 1 W., at East Lansing, 3 miles upstream from Sycamore Creek and 4 miles upstream from mouth. Datum of gage is 824.39 feet above mean sea level, datum of 1929.

Drainage area.- 355 square miles.

Records available.- March 1931 to September 1944. August 1902 to December 1903 at site three-quarters of a mile downstream.

Average discharge.- 13 years (1931-44), 168 second-feet.

Extremes.- Maximum discharge during year, 2,320 second-feet Feb. 27 (gage height, 7.42 feet); minimum, 14 second-feet Sept. 22 (gage height, 3.05 feet).
1902-3, 1931-44: Maximum discharge, 2,020 second-feet Feb. 14, 1938 (gage height, 9.20 feet); minimum, 3 second-feet July 31, 1931.
Maximum stage known, about 14.5 feet during flood of 1921.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are fair.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 19-31, Mar. 17 to Apr. 3, Sept. 16-29)

3.0	11	3.6	141	6.0	1,290
3.1	23	3.9	237	7.0	2,000
3.2	41	4.2	350	7.2	2,160
3.3	63	4.5	478		
3.4	87	5.0	720		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	52	61	85	48	90	826	538	d213	130	63	a22	31
2	39	82	80	28	92	653	474	230	165	52	a22	44
3	37	100	82	41	105	469	383	248	206	54	a21	38
4	25	103	82	50	97	362	350	223	171	52	a20	20
5	48	95	82	45	103	241	296	230	144	37	a20	20
6	50	100	90	45	119	248	251	300	121	43	a19	31
7	50	150	105	48	127	223	248	338	108	39	a19	23
8	50	248	108	48	90	162	296	300	100	a35	a18	22
9	52	281	108	39	95	171	412	358	100	31	a17	22
10	50	251	105	28	82	177	594	456	103	33	16	20
11	39	206	84	43	61	165	746	408	105	48	18	20
12	54	177	68	41	65	210	1,020	323	105	39	16	22
13	52	162	56	43	82	323	992	259	87	50	18	25
14	37	147	73	39	85	288	772	220	90	50	19	23
15	54	141	82	50	82	316	648	197	85	48	23	22
16	73	133	82	43	68	668	694	174	75	41	18	37
17	82	127	77	26	65	908	720	219	63	a33	19	30
18	80	119	77	43	65	746	d520	375	61	48	20	16
19	103	119	63	45	63	501	d440	346	146	a44	19	16
20	90	124	61	37	70	379	d370	311	266	a35	30	30
21	80	116	63	35	70	315	d340	300	190	a29	19	16
22	73	113	54	48	80	248	d335	606	133	a25	19	15
23	68	108	50	43	197	273	d335	799	212	23	23	15
24	68	103	45	28	447	408	d360	668	350	23	22	30
25	65	95	45	31	638	412	d380	533	303	23	19	16
26	63	97	31	59	908	350	d400	412	210	25	20	33
27	59	92	43	73	2,150	334	d340	311	138	a45	19	16
28	56	92	52	162	1,760	395	d280	237	105	a41	23	26
29	59	92	52	213	1,080	772	d250	193	82	a30	22	26
30	61	87	50	153	-	936	d220	156	73	a25	26	23
31	59	-	48	124	-	694	-	141	-	a23	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,828	103	25	59.0	0.166	0.19
November	3,921	281	61	131	.369	.41
December	2,183	108	31	70.4	.198	.23
Calendar year 1943	116,094	2,400	25	318	.896	12.16
January	1,799	213	26	58.0	.163	.19
February	9,046	2,160	61	312	.879	.95
March	13,173	936	162	425	1.20	1.38
April	14,004	1,020	220	467	1.32	1.47
May	10,084	799	141	325	.915	1.05
June	4,227	350	61	141	.397	.44
July	1,187	63	23	38.3	.108	.12
August	637	31	16	20.5	.058	.07
September	728	44	15	24.3	.068	.08
Water year 1943-44	62,817	2,160	15	172	.485	6.58

a No gage-height record; discharge computed on basis of records for Raisin River at Monroe, recorded range in stage, and weather records.
d Doubtful gage-height record; discharge computed on basis of weather records and records for Grand River at Jackson and Raisin River at Monroe.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Higgins Lake Outlet near Roscommon, Mich.

Location.- Wire-weight gage, lat. 44°25'50", long. 84°40'10", in sec. 34, T. 24 N., R. 3 W., on upstream side county highway bridge over Higgins Lake Outlet, 3 miles southwest of Roscommon and 8 miles upstream from Backus Creek. Prior to Dec. 13, 1943, staff gage 500 feet downstream at same datum. Datum of gage is 1,150.88 feet above mean sea level (levels by Michigan Department of Conservation).

Drainage area.- 58 square miles.

Records available.- June 1942 to September 1944.

Extremes.- Maximum discharge observed during year, 83 second-feet June 19 (gage height, 2.47 feet); minimum daily, 31 second-feet Sept. 10-13, 15, 16.
1942-44: Maximum discharge observed, 110 second-feet June 28, 1943 (gage height, 3.15 feet); minimum daily, 28 second-feet Aug. 17, 1942.

Remarks.- Records good except those for periods of ice effect and doubtful or no gage-height record, which are fair. Gage read once daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	34	38	36	40	42	50	57	72	72	50	34
2	34	33	37	36	40	42	51	56	72	71	48	34
3	33	33	37	36	39	42	50	56	71	69	49	34
4	32	33	37	37	40	42	51	59	68	69	49	34
5	34	33	37	37	40	43	50	61	68	67	a49	34
6	37	34	37	37	41	42	49	63	70	66	49	a34
7	36	38	37	38	40	42	49	64	68	65	48	a34
8	36	41	38	39	41	43	49	64	66	65	46	33
9	35	43	37	38	41	43	49	64	67	64	45	32
10	34	43	d38	38	41	43	50	64	70	60	44	31
11	34	42	d38	38	40	43	48	64	67	60	44	31
12	34	42	d37	38	39	45	48	66	66	65	46	31
13	34	43	a37	38	39	45	48	72	66	a66	45	31
14	34	42	a37	37	39	43	48	72	69	a62	44	32
15	34	42	a38	37	39	43	48	69	73	60	44	31
16	34	b41	a38	37	39	44	48	69	72	a57	43	31
17	35	*b40	b37	37	40	45	48	69	73	55	43	33
18	35	b40	b37	37	41	45	47	67	73	53	40	33
19	35	39	b37	36	41	45	46	66	83	51	38	33
20	35	39	38	36	40	45	47	66	80	50	38	36
21	34	40	37	36	40	45	48	66	79	50	37	a36
22	33	39	40	36	42	45	48	70	78	51	36	36
23	33	39	38	36	42	45	50	72	80	50	36	35
24	33	39	38	37	42	45	55	69	80	48	35	34
25	33	38	38	37	42	45	58	70	79	45	35	34
26	33	39	37	37	43	a46	58	69	80	44	34	33
27	33	40	*37	38	43	46	58	70	78	46	34	a34
28	32	39	38	39	43	46	57	70	75	48	35	35
29	32	37	b38	40	43	46	56	69	77	50	34	34
30	32	38	38	40	-	49	57	68	75	50	33	33
31	34	-	36	*40	-	49	-	70	-	50	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,051	37	32	33.9	0.584	0.67
November	1,163	43	33	38.8	.669	.75
December	1,162	40	36	37.5	.647	.75
Calendar year 1943	19,739	110	32	54.1	.933	12.68
January	1,159	40	36	37.4	.645	.74
February	1,180	43	39	40.7	.702	.76
March	1,374	49	42	44.3	.764	.88
April	1,519	58	46	50.6	.872	.97
May	2,051	72	56	66.2	1.14	1.31
June	2,195	83	66	73.2	1.26	1.41
July	1,779	72	44	57.4	.990	1.14
August	1,285	50	33	41.5	.716	.83
September	1,000	36	31	33.3	.574	.64
Water year 1943-44	16,918	83	31	46.2	.797	10.85

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Manistee River near Grayling and Middle Branch Au Sable River at Grayling.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on the basis of weather records and records for Manistee River near Grayling and Middle Branch Au Sable River at Grayling.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Muskegon River at Evart, Mich.

Location.- Wire-weight gage, lat. 43°54', long. 85°15', in sec. 34, T. 18 N., R. 8 W., on highway bridge at east edge of Evart, half a mile upstream from Twin Creek.

Drainage area.- 1,450 square miles.

Records available.- November 1930 to June 1931, January 1934 to September 1944.

Average discharge.- 10 years (1934-44), 925 second-feet.

Extremes.- Maximum discharge observed during year, 1,940 second-feet Apr. 10, 11, (gage height, 9.10 feet); minimum observed, 263 second-feet Aug. 24 (gage height, 6.65 feet).

1930-31, 1934-44: Maximum discharge observed, 6,140 second-feet Mar. 31, 1943 (gage height, 13.28 feet); minimum observed, 237 second-feet Aug. 28, 1941 (gage height, 6.58 feet).

Remarks.- Records fair. Gage read twice daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 18		Dec. 19 to Sept. 30			
7.0	410	6.7	282	7.5	685
7.5	670	6.9	365	8.0	1,030
8.0	965	7.1	460	9.1	1,940
8.4	1,240				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	470	598	720	500	600	730	995	1,500	785	737	365	374
2	485	637	681	500	600	718	883	1,620	778	698	374	370
3	480	637	686	500	600	744	883	1,620	785	679	348	374
4	465	626	632	500	600	724	925	1,500	785	643	365	378
5	455	654	648	500	600	589	799	1,540	785	613	425	361
6	455	681	698	500	550	792	778	1,620	771	595	455	378
7	475	932	659	500	550	625	1,260	1,540	730	548	470	383
8	470	1,240	780	500	550	532	1,540	1,460	711	526	450	383
9	465	1,240	752	500	550	532	1,720	1,420	698	505	388	374
10	445	1,240	676	500	550	543	1,900	1,460	785	495	352	356
11	460	1,170	600	500	550	601	1,900	1,380	848	485	348	365
12	495	1,100	600	500	550	1,060	1,670	1,340	848	548	344	365
13	525	1,060	600	500	500	1,220	1,580	1,340	820	571	322	378
14	555	1,030	550	500	490	1,140	1,460	1,380	890	538	335	383
15	566	965	*450	500	485	1,030	1,420	1,300	925	532	348	396
16	525	965	500	550	548	925	1,340	1,260	890	526	335	410
17	604	932	600	550	*601	799	1,300	1,260	841	485	378	435
18	555	870	600	550	601	661	1,260	1,380	841	485	388	440
19	576	870	600	550	661	643	1,220	1,340	1,260	455	352	445
20	637	840	600	550	667	643	1,220	1,300	1,540	388	356	455
21	626	780	600	550	631	685	1,220	1,260	1,500	365	322	470
22	648	714	600	550	595	711	1,220	1,180	1,460	365	314	495
23	654	725	600	550	571	724	1,260	1,220	1,380	396	331	490
24	654	686	550	550	526	698	1,460	1,180	1,300	435	302	485
25	654	698	550	*500	510	890	1,670	1,100	1,180	450	331	480
26	648	720	550	550	655	960	1,760	1,100	1,100	425	335	475
27	642	642	550	757	1,300	995	1,760	1,030	1,030	440	335	516
28	637	637	550	876	1,220	960	1,720	995	960	435	326	613
29	598	703	550	711	1,100	960	1,620	925	869	445	348	698
30	582	708	540	655	-	925	1,540	855	764	425	352	643
31	588	-	500	613	-	925	-	799	-	348	344	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	17,094	654	455	551	0.380	0.44
November	25,300	1,240	598	843	.581	.65
December	18,772	780	450	606	.418	.48
Calendar year 1943	448,965	5,900	388	1,230	.848	11.51
January	17,112	876	500	552	.331	.44
February	18,511	1,300	485	638	.440	.47
March	24,684	1,220	532	796	.549	.63
April	41,283	1,900	778	1,376	.949	1.06
May	40,204	1,620	799	1,297	.894	1.03
June	28,859	1,540	698	962	.663	.74
July	15,581	737	348	503	.347	.40
August	11,138	470	302	359	.248	.29
September	13,168	698	356	439	.303	.34
Water year 1943-44	271,706	1,900	302	742	.512	6.97

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 26, Feb. 1-14.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Muskegon River at Newaygo, Mich.

Location.- Water-stage recorder, lat. 43°25', long. 85°48', in sec. 24, T. 12 N., R. 13 W., in tailrace of power plant operated by Consumers Power Co. at Newaygo, 600 feet downstream from Penoyer Creek.

Drainage area.- 2,350 square miles.

Records available.- October 1930 to September 1944. June 1901 to December 1906 at site above Newaygo.

Average discharge.- 14 years (1930-44), 1,695 second-feet.

Extremes (regulated).- Maximum discharge during year, 3,650 second-feet Apr. 25 (gage height, 48.92 feet); minimum, 410 second-feet Sept. 5 (gage height, 46.17 feet); minimum daily, 588 second-feet Sept. 3, 10.

1901-6, 1930-44: Maximum discharge recorded, 8,940 second-feet Apr. 2, 1943 (gage height, 51.99 feet); minimum, about 150 second-feet June 4, 1941; minimum daily, 390 second-feet July 13, 1934.

Remarks.- Records good. Flow regulated by Hardy Dam (since 1931), Croton Dam, and several smaller dams, and by power plant at Newaygo.

Rating tables, water year 1943-44 (gage-height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 27		Feb. 28 to Sept. 30			
46.8	840	46.4	565	47.5	1,640
47.0	1,020	46.7	805	48.0	2,300
47.5	1,550	47.0	1,090	48.9	3,650
48.1	2,330				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,010	1,430	2,120	885	1,790	3,120	2,230	2,300	1,700	1,640	1,010	895
2	1,040	1,860	2,120	876	1,790	3,050	1,760	2,680	1,760	1,030	1,050	859
3	1,010	1,550	2,120	1,170	1,790	3,050	1,760	2,680	1,760	980	1,080	588
4	1,010	1,790	1,670	1,550	1,790	3,050	1,760	2,520	1,080	990	1,070	602
5	1,090	1,790	993	1,550	1,790	2,230	1,760	2,020	1,580	1,000	952	877
6	1,340	1,790	1,340	1,500	1,790	2,680	1,820	1,960	1,760	990	952	1,010
7	1,440	1,290	1,730	930	1,790	2,750	1,760	1,960	1,760	1,030	971	990
8	1,360	1,920	1,790	894	1,790	2,020	1,080	2,450	1,760	1,010	1,120	990
9	1,060	2,260	1,790	1,200	1,790	1,760	1,050	2,750	1,760	1,000	1,100	942
10	1,130	2,190	1,860	1,550	1,790	1,760	1,820	2,750	1,070	990	952	588
11	1,210	2,190	984	1,550	1,790	1,760	2,450	2,750	1,000	1,020	859	672
12	1,340	2,120	966	1,670	1,790	1,260	2,980	2,020	1,410	1,270	868	962
13	1,410	2,120	1,500	1,790	975	1,760	2,980	1,960	1,760	1,760	688	990
14	2,120	2,120	1,790	1,790	984	2,230	2,600	1,960	1,890	1,640	656	990
15	1,920	2,120	984	1,790	1,420	2,230	2,230	2,020	2,160	1,000	859	1,000
16	1,400	2,120	984	993	1,790	2,230	1,820	2,160	2,160	980	895	1,020
17	1,080	2,050	993	1,550	1,790	2,230	2,020	1,890	2,160	914	1,100	1,000
18	1,290	2,050	993	1,500	1,790	2,230	2,230	2,520	1,760	962	1,000	1,000
19	1,320	2,050	984	993	1,020	1,760	2,230	2,900	1,960	859	1,050	1,010
20	1,180	1,670	1,120	993	975	1,760	2,230	2,380	2,090	868	1,030	1,020
21	1,090	1,610	1,350	1,400	1,370	1,760	2,230	2,160	2,090	850	1,020	1,010
22	1,340	1,610	1,790	1,790	1,790	1,760	2,230	2,600	2,090	877	886	1,000
23	1,160	1,610	1,730	1,010	1,790	1,820	1,820	2,900	1,760	877	924	1,020
24	966	1,610	1,550	1,430	1,790	1,820	2,380	2,900	2,090	859	895	1,000
25	1,120	975	885	1,790	1,790	1,090	3,120	2,900	2,090	868	796	1,000
26	1,360	1,010	894	1,500	1,860	1,040	3,580	2,900	2,020	980	595	1,000
27	1,250	1,020	894	1,170	2,260	1,820	3,580	2,900	2,090	990	602	1,020
28	1,180	1,010	903	1,790	3,120	1,820	3,050	2,160	2,090	1,010	680	1,280
29	1,350	1,430	894	1,790	3,120	2,020	1,960	2,090	2,090	1,020	924	1,760
30	1,090	1,920	894	1,790	-	2,230	1,960	2,090	1,890	1,000	914	1,520
31	1,060	-	894	1,790	-	2,230	-	1,760	-	1,030	924	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	38,726	2,120	966	1,249	0.531	0.61
November	52,285	2,260	975	1,743	.742	.83
December	41,509	2,120	885	1,339	.570	.66
Calendar year 1943	848,431	8,580	777	2,324	.989	13.44
January	43,974	1,790	876	1,419	.604	.70
February	51,114	3,120	975	1,763	.750	.81
March	64,330	3,120	1,040	2,075	.883	1.02
April	66,480	3,580	1,050	2,216	.943	1.05
May	73,990	2,900	1,760	2,387	1.02	1.18
June	54,640	2,160	1,000	1,821	.775	.86
July	32,294	1,760	850	1,042	.443	.51
August	28,422	1,120	595	917	.390	.45
September	29,615	1,760	588	987	.420	.47
Water year 1943-44	577,379	3,580	588	1,578	.671	9.15

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Pere Marquette River at Scottville, Mich.

Location.- Water-stage recorder, lat. 43°56'40", long. 86°16'45", in sec. 19, R. 16 W., T. 18 N., at Scottville, 5¾ miles downstream from South Branch. Datum of gage is 606.30 feet above mean sea level, datum of 1929.

Drainage area.- 709 square miles.

Records available.- August 1939 to September 1944.

Extremes.- Maximum discharge during year, 1,080 second-feet Mar. 1; maximum gage height, 4.52 feet Dec. 19 (backwater from ice); minimum discharge, 340 second-feet Aug. 16 (gage height, 1.80 feet).

1939-44: Maximum discharge observed, 1,900 second-feet Mar. 19, 1942, Mar. 27, 1943; maximum gage height observed, 5.97 feet Mar. 27, 1943, site and datum then in use; minimum discharge observed, 310 second-feet Aug. 9, 10, 1941 (gage height, 2.12 feet, site and datum then in use).

Remarks.- Records good except those for period of ice effect, which are fair.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.8	340
2.2	415
2.7	545
3.3	745
4.0	1,050

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	450	530	575	530	640	1,050	745	745	560	426	394	384
2	450	545	575	540	590	910	745	728	560	426	388	388
3	450	545	575	540	575	805	745	710	545	415	378	380
4	450	530	575	540	575	745	745	710	575	415	372	404
5	450	545	575	530	575	692	728	692	545	404	370	426
6	450	560	605	520	575	640	728	675	530	394	369	450
7	450	692	640	520	575	620	728	658	515	394	365	450
8	450	765	675	510	560	600	785	658	515	390	360	450
9	450	865	692	510	530	600	865	658	515	388	354	426
10	450	955	675	510	520	600	955	658	545	386	351	404
11	450	955	640	510	520	605	978	675	560	382	350	392
12	450	888	605	500	510	710	955	658	575	404	343	388
13	422	845	580	495	510	785	910	658	590	450	346	404
14	530	805	550	490	510	865	845	658	785	475	343	415
15	545	765	570	500	510	910	805	692	865	415	343	426
16	545	728	570	490	520	865	785	710	888	394	345	415
17	530	692	570	500	520	785	785	710	765	390	358	404
18	515	675	580	510	520	745	785	692	640	386	378	404
19	530	658	580	520	510	710	805	692	590	384	382	404
20	530	658	560	*520	510	658	785	710	622	382	369	426
21	530	658	550	530	520	640	765	728	675	382	360	426
22	530	658	540	515	520	*640	745	745	622	380	354	426
23	530	640	540	515	550	658	765	745	575	376	360	404
24	545	622	540	502	580	658	805	745	545	394	358	404
25	530	605	550	515	640	675	845	765	530	394	361	394
26	515	605	560	560	675	692	932	745	502	415	360	394
27	515	605	570	605	825	728	978	765	488	438	360	394
28	515	590	570	675	910	728	955	785	462	438	372	415
29	502	590	550	710	*1,000	710	888	710	450	438	382	438
30	502	590	540	728	-	728	825	640	438	426	380	438
31	502	-	520	692	-	728	-	590	-	415	384	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	15,303	545	450	494	0.697	0.80
November	20,364	955	530	679	.958	1.07
December	17,997	692	520	581	.819	.94
Calendar year 1943	251,138	1,900	438	688	.975	13.23
January	16,832	728	490	543	.766	.98
February	17,075	1,000	510	817	1.15	1.24
March	22,485	1,050	600	725	1.02	1.18
April	24,710	978	728	824	1.16	1.29
May	21,710	785	590	700	.937	1.14
June	17,572	888	438	586	.827	.92
July	12,596	475	376	406	.573	.66
August	11,289	394	343	364	.513	.59
September	12,373	450	380	412	.581	.65
Water year 1943-44	210,306	1,050	343	575	.811	11.36

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 13 to Jan. 20, Feb. 10-24, Mar. 7-10.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Big Sable River near Free Soil, Mich.

Location.- Staff gage, lat. 44°07'15", long. 86°16'50", in sec. 24, T. 20 N., R. 17 W., 30 feet downstream from bridge on U. S. Highway 31, 2¼ miles northwest of Free Soil, and 6 miles upstream from Hamlin Lake. Datum of gage is 615.32 feet above mean sea level, datum of 1929 (levels by Michigan State Department of Conservation).

Drainage area.- 127 square miles.

Records available.- May 1942 to September 1944.

Extremes.- Maximum discharge observed during year, 207 second-feet Apr. 25; maximum gage height observed, 2.87 feet Dec. 15 (backwater from ice); minimum discharge observed, 81 second-feet Aug. 14 (gage height, 0.86 foot).

1942-44: Maximum discharge observed, 419 second-feet Mar. 26, 27, 1943; maximum gage height observed, 3.26 feet Jan. 20, 1943 (backwater from ice); minimum observed, that of Aug. 14, 1944.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read twice daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 9		Apr. 10 to Sept. 30	
1.0	93	0.8	75
1.3	123	1.1	107
1.6	156	1.5	153
1.9	189	1.9	207

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	122	135	113	136	145	147	157	120	105	95	96
2	101	120	135	117	132	141	147	156	118	103	92	93
3	101	118	134	111	131	135	146	154	117	102	90	89
4	101	117	133	114	127	130	144	148	115	100	90	92
5	102	125	134	115	126	120	140	145	114	100	89	102
6	103	133	149	118	125	120	140	146	112	99	88	105
7	102	166	157	114	125	120	149	146	114	98	87	110
8	101	182	156	112	120	120	160	145	114	96	86	104
9	101	184	150	110	120	120	167	148	119	96	85	99
10	101	185	147	110	120	125	186	148	135	96	84	97
11	101	178	144	110	118	136	186	146	131	95	83	96
12	101	170	142	105	117	166	179	145	130	97	82	94
13	109	166	133	105	115	170	172	142	140	99	83	96
14	124	158	*130	105	115	163	165	143	186	97	81	102
15	121	153	130	105	*118	156	165	148	200	94	82	103
16	117	*149	135	110	117	152	163	146	179	93	83	99
17	117	145	135	110	115	149	160	161	163	90	88	99
18	120	143	135	110	115	146	156	179	151	92	88	98
19	121	144	133	114	113	138	153	172	160	90	85	95
20	118	145	131	*115	115	138	151	165	161	90	85	108
21	117	145	132	117	117	137	152	157	145	90	84	117
22	119	143	131	117	117	*134	153	149	134	90	83	108
23	120	142	130	116	123	135	160	146	130	89	83	103
24	118	140	130	116	132	136	186	141	127	88	85	100
25	117	138	130	120	128	143	207	147	122	88	84	99
26	116	137	130	136	156	147	207	146	118	96	83	97
27	115	138	125	145	175	145	193	139	116	111	83	97
28	115	138	119	155	165	143	179	133	112	104	88	102
29	114	137	115	154	154	148	166	127	109	103	96	106
30	114	136	109	146	-	149	160	124	107	103	92	105
31	118	-	114	142	-	147	-	121	-	97	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,445	124	100	111	0.874	1.01
November	4,397	185	117	147	1.16	1.29
December	4,143	157	109	134	1.06	1.22
Calendar year 1943	54,074	416	99	148	1.17	15.83
January	3,687	155	105	119	.937	1.08
February	3,687	175	113	127	1.00	1.08
March	4,354	170	120	140	1.10	1.27
April	4,939	207	140	165	1.30	1.45
May	4,570	179	121	147	1.16	1.34
June	3,999	200	107	133	1.05	1.17
July	2,991	111	88	96.5	.760	.88
August	2,682	95	81	86.5	.681	.79
September	3,011	117	89	100	.787	.88
Water year 1943-44	45,905	207	81	125	.984	13.46

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 14-18, 23-27, Jan. 9-18, Feb. 6-10, 13, 14, 17, 18, 20, Mar. 4-10.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

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Manistee River near Grayling, Mich.

Location.- Water-stage recorder, lat. 44°41'35", long. 84°50'50", in sec. 31, T. 27 N., R. 4 W., just upstream from bridge on State Highway 72, 2½ miles downstream from Goose Creek and 6½ miles northwest of Grayling.

Drainage area.- 159 square miles.

Records available.- November 1942 to September 1944.

Extremes.- Maximum discharge during year, 298 second-feet Nov. 8 (gage height, 1.72 feet); minimum, 157 second-feet Jan. 14 (gage height, 0.72 foot).
1942-44: Maximum discharge, 330 second-feet June 2, 1943 (gage height, 1.86 feet); minimum, 122 second-feet Feb. 14, 1943 (gage height, 0.49 feet).

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	189	185	177	194	178	189	197	202	192	178	177
2	174	185	186	176	194	178	188	213	225	189	176	177
3	176	194	185	176	191	178	185	205	195	188	174	176
4	174	200	185	176	189	176	184	198	192	188	173	176
5	174	205	185	177	192	174	182	200	188	184	171	176
6	174	220	195	177	195	174	184	208	185	184	173	186
7	174	242	194	176	191	174	192	205	185	182	172	194
8	173	279	191	173	186	173	203	197	184	179	170	188
9	172	270	189	178	186	179	211	195	184	181	167	178
10	172	242	186	177	184	181	215	194	194	181	166	177
11	172	234	177	174	178	181	211	192	186	178	165	176
12	172	223	189	172	181	198	205	195	182	197	166	174
13	173	218	176	173	182	200	200	208	185	202	164	176
14	178	211	179	171	182	192	197	210	200	189	164	184
15	174	206	194	176	184	189	197	202	191	184	164	185
16	174	202	192	172	188	186	195	195	182	181	164	179
17	a175	200	189	172	184	186	192	192	178	178	165	181
18	a180	198	186	172	179	184	189	188	184	178	165	182
19	a185	200	184	173	181	181	188	186	242	178	164	178
20	a190	202	179	172	186	182	186	189	242	177	164	198
21	a190	200	179	173	177	179	205	186	210	177	164	213
22	a195	197	171	173	178	178	203	188	197	177	164	202
23	a195	192	184	171	178	181	202	188	216	174	164	192
24	192	191	189	170	176	182	225	186	251	177	165	186
25	185	191	182	174	174	205	234	185	225	177	165	184
26	182	191	191	185	179	203	225	185	208	185	165	182
27	181	191	186	211	189	198	211	184	202	216	166	184
28	179	189	178	225	185	192	202	181	195	197	172	188
29	177	188	174	223	179	195	197	179	192	191	174	188
30	176	186	188	a210	-	194	195	178	191	189	173	182
31	178	-	182	a200	-	191	-	185	-	181	174	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,542	195	172	179	1.13	1.30
November	6,236	279	185	208	1.31	1.46
December	5,730	195	171	185	1.16	1.34
Calendar year 1943	70,115	320	138	192	1.21	16.41
January	5,605	225	170	181	1.14	1.31
February	5,342	195	174	184	1.16	1.25
March	5,742	205	173	185	1.16	1.34
April	5,992	234	182	200	1.26	1.41
May	5,994	213	178	193	1.21	1.40
June	5,993	251	178	200	1.26	1.41
July	5,731	216	174	185	1.16	1.34
August	5,211	178	164	168	1.06	1.22
September	5,519	213	174	184	1.16	1.29
Water year 1943-44	68,637	279	164	188	1.18	16.07

a No gage-height record; discharge computed on basis of weather records and records for Middle Branch Au Sable River at Grayling and Higgins Lake Outlet near Roscommon.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Manistee River near Sherman, Mich.

Location.- Wire-weight gage, lat. 44°26', long. 85°42', on line between sec. 36, T. 24 N., R. 12 W., and sec. 31, T. 24 N., R. 11 W., 150 feet upstream from Wheeler Creek and three-quarters of a mile north of Sherman.

Drainage area.- 900 square miles.

Records available.- July 1903 to May 1916, November 1930 to June 1931, January 1934 to September 1944.

Average discharge.- 22 years (1903-15, 1934-44), 1,090 second-feet.

Extremes.- Maximum discharge observed during year, 1,840 second-feet Nov. 10 (gage height, 12.15 feet); minimum observed, 800 second-feet Aug. 21, 30 (gage height, 9.52 feet).

1903-16, 1930-31, 1934-44: Maximum discharge observed, 3,500 second-feet Mar. 25, 1913 (gage height, 7.0 feet, datum then in use); minimum observed, 540 second-feet Feb. 21-23, 1936 (revised), backwater from ice.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read once daily.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

9.5	800
10.0	950
11.0	1,330
12.1	1,800

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	890	985	1,060	900	1,250	1,060	1,130	1,290	950	1,130	950	860
2	860	985	1,060	900	1,170	1,020	1,090	1,250	1,250	1,090	920	860
3	860	1,020	1,060	900	1,090	985	1,090	1,250	1,330	1,060	890	830
4	860	1,060	1,060	900	1,090	940	1,060	1,250	1,370	1,020	890	830
5	860	1,090	1,060	900	1,090	920	1,060	1,250	1,450	985	890	830
6	860	1,170	1,130	900	1,090	900	1,060	1,250	1,290	950	890	890
7	860	1,410	1,210	890	1,090	900	1,130	1,290	1,170	950	920	890
8	860	1,700	1,210	890	1,020	900	1,290	1,290	1,090	950	890	890
9	860	1,750	1,170	890	1,020	900	1,370	1,250	1,090	950	860	890
10	860	1,800	1,170	890	985	890	1,410	1,210	1,090	950	860	890
11	860	1,800	1,090	900	985	950	1,450	1,250	1,090	920	860	860
12	a860	1,660	1,000	900	980	1,210	1,450	1,290	1,130	920	830	860
13	a860	1,530	950	900	980	1,210	1,410	1,410	1,130	950	860	860
14	a860	1,410	920	920	980	1,170	1,330	1,450	1,170	950	830	860
15	920	1,330	950	920	980	1,090	1,290	1,410	1,210	950	830	890
16	920	1,290	950	920	1,000	1,060	1,250	1,370	1,210	920	830	890
17	920	1,250	950	940	1,000	1,060	1,210	1,330	1,130	890	830	890
18	950	1,210	950	950	980	1,020	1,210	1,250	1,090	890	830	860
19	1,020	1,210	950	*950	980	1,020	1,170	1,170	a1,170	890	830	860
20	1,060	1,250	950	950	980	985	1,130	1,130	1,330	890	830	950
21	1,060	1,210	920	950	980	a985	1,210	1,130	1,530	890	800	1,060
22	1,060	1,210	890	950	980	*985	1,290	1,090	1,530	890	830	1,060
23	1,060	1,170	890	950	985	985	1,330	1,130	1,370	860	830	1,020
24	1,060	1,130	890	950	985	1,020	1,490	1,090	1,250	890	830	985
25	1,060	1,130	890	950	985	1,130	1,620	1,090	1,370	920	830	950
26	1,020	1,130	910	1,060	1,130	1,210	1,700	1,060	1,620	920	800	920
27	985	1,130	930	1,170	1,250	1,210	1,700	1,020	1,490	950	830	920
28	985	1,090	940	1,330	1,170	1,170	1,570	1,020	1,330	985	830	920
29	950	1,090	930	1,410	1,090	1,170	1,450	1,020	1,250	1,020	800	950
30	950	1,060	910	1,410	-	1,170	1,370	985	1,210	1,020	800	950
31	950	-	900	1,330	-	1,130	-	950	-	985	830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	29,000	1,060	860	935	1.04	1.20
November	38,260	1,800	985	1,275	1.42	1.58
December	30,850	1,210	890	995	1.11	1.28
Calendar year 1943	439,515	2,840	860	1,204	1.34	18.17
January	30,670	1,410	890	989	1.10	1.27
February	30,295	1,250	980	1,045	1.16	1.25
March	32,355	1,210	890	1,044	1.16	1.34
April	39,320	1,700	1,060	1,311	1.46	1.63
May	37,225	1,450	950	1,201	1.33	1.53
June	37,690	1,620	950	1,256	1.40	1.56
July	29,535	1,130	860	953	1.06	1.22
August	26,330	950	800	849	.943	1.09
September	27,175	1,060	830	906	1.01	1.13
Water year 1943-44	388,705	1,800	800	1,062	1.18	16.08

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of weather records and records for Pere Marquette River at Scottville.

Note.- Stage-discharge relation affected by ice Dec. 12-21, Dec. 26 to Jan. 5, Jan. 8-17, Feb. 12-22, Mar. 3-9.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Sturgeon River near Wolverine, Mich.

Location.- Staff gage, lat. 45°17'35", long. 84°36'15", in sec. 31, T. 34 N., R. 2 W., 1½ miles north of Wolverine and 2 miles downstream from West Branch.

Drainage area.- 164 square miles.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge observed during year, 482 second-feet Nov. 7 (gage height, 3.64 feet); minimum observed, 118 second-feet, Aug. 23, 24 (gage height, 2.17 feet).
1942-44: Maximum discharge, 919 second-feet Apr. 1, 1943 (gage height, 5.45 feet, from floodmark); minimum observed, that of Aug. 23, 24, 1944.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read once daily.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.1	104
2.3	146
3.0	319
3.6	469

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	202	194	188	219	182	212	314	158	160	162	160
2	160	206	194	186	212	179	209	286	158	160	148	155
3	160	202	196	184	204	179	204	246	158	158	142	148
4	160	194	199	182	202	182	199	234	209	155	139	153
5	158	209	202	184	202	182	194	229	202	151	137	164
6	160	229	204	186	202	182	236	226	184	148	135	172
7	160	419	209	186	202	182	279	222	186	146	133	169
8	160	469	206	186	202	179	299	219	192	146	137	167
9	160	432	202	186	202	182	316	a219	219	144	137	162
10	160	332	199	186	200	199	292	219	226	144	131	160
11	160	282	196	189	200	219	269	214	229	144	128	155
12	160	259	194	186	200	229	249	219	232	144	128	146
13	160	242	194	186	200	246	212	239	264	142	131	144
14	160	229	194	189	195	242	232	252	259	160	131	151
15	162	216	194	186	195	222	229	229	229	164	131	160
16	167	212	189	184	*195	204	219	204	182	160	131	164
17	a200	209	189	*184	195	206	216	196	167	158	131	158
18	246	209	182	176	195	214	214	189	214	155	131	153
19	252	209	192	182	190	219	214	212	232	148	131	153
20	249	209	199	182	190	219	224	212	232	146	133	158
21	249	204	192	176	185	*192	226	196	269	148	131	212
22	246	204	192	182	182	179	232	189	309	151	122	299
23	244	204	196	182	184	204	356	182	309	153	118	274
24	234	206	202	182	184	232	432	179	254	155	118	199
25	216	209	199	189	184	344	356	179	229	160	120	174
26	206	204	194	289	212	304	284	176	202	182	120	242
27	196	204	194	344	222	246	249	174	176	184	122	282
28	189	202	189	319	212	234	236	172	169	176	133	284
29	189	199	190	296	202	226	222	169	167	172	153	249
30	186	196	*190	274	-	226	216	164	164	172	160	222
31	189	-	190	244	-	219	-	160	-	169	162	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,860	252	158	189	1.15	1.33
November	7,202	469	194	240	1.46	1.63
December	6,056	209	182	195	1.19	1.37
Calendar year 1943	79,268	819	144	217	1.32	17.98
January	6,375	344	176	206	1.26	1.45
February	5,769	222	182	199	1.21	1.30
March	6,654	344	179	215	1.31	1.51
April	7,527	432	194	251	1.53	1.71
May	6,520	314	160	210	1.28	1.48
June	6,380	309	158	213	1.30	1.45
July	4,855	184	142	157	.957	1.10
August	4,166	162	118	134	.817	.94
September	5,589	299	144	186	1.13	1.26
Water year 1943-44	72,953	469	118	199	1.21	16.53

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Dec. 29 to Jan. 1, Feb. 6-21.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Indian River at Indian River, Michigan

Location.- Water-stage recorder, lat. 45°24'35", long. 84°37'10", in sec. 24, T. 35 N., R. 3 W., at Indian River, an eighth of a mile downstream from Burt Lake and 3½ miles upstream from Mullett Lake. Datum of gage is 590.21 feet above mean sea level, datum of 1929 (levels by Michigan State Department of Conservation).

Drainage area.- 583 square miles.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge during year, 690 second-feet May 14 (gage height, 4.88 feet); minimum, 375 second-feet Aug. 30 (gage height, 3.76 feet).
1942-44: Maximum discharge, 1,080 second-feet Apr. 25, 1943 (gage height, 5.65 feet); minimum observed, 360 second-feet Sept. 5-8, 13, 1942; minimum gage height, 3.76 feet Aug. 30, 1944.

Remarks.- Records fair.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 30 to May 11)

3.8	385
4.2	470
4.6	580
4.9	690

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	435	435	550	632	598	580	615	650	550	520	458	395
2	435	435	565	632	598	580	615	650	550	520	458	395
3	425	435	565	632	598	580	615	650	550	508	458	395
4	425	435	565	632	598	580	615	650	535	508	458	395
5	415	458	565	632	598	565	615	650	535	508	458	395
6	415	470	580	632	615	565	615	670	535	508	458	405
7	415	495	565	632	615	565	615	650	535	495	458	415
8	415	520	580	632	615	565	615	650	520	495	445	405
9	415	535	580	632	615	565	598	650	520	495	445	395
10	405	535	a580	615	598	550	615	632	535	482	445	395
11	405	550	a580	615	598	565	615	632	520	482	435	405
12	405	550	a580	615	598	565	615	650	520	508	435	405
13	395	565	a580	615	598	565	615	650	520	495	435	405
14	405	550	a580	598	598	565	615	650	520	482	425	405
15	405	565	a580	598	598	565	615	650	520	495	425	415
16	415	565	a580	598	598	565	598	650	535	482	425	405
17	415	565	a580	598	580	580	598	650	520	470	425	405
18	415	565	a580	580	580	580	598	632	520	470	415	405
19	415	580	580	580	580	580	598	632	535	470	405	405
20	415	580	580	580	580	565	598	615	520	470	405	415
21	415	580	598	580	580	565	598	615	520	458	415	435
22	425	580	a600	580	580	565	598	615	520	445	405	435
23	425	a580	a600	580	580	565	615	598	535	445	405	435
24	425	565	a600	580	580	565	632	598	565	435	395	425
25	425	565	a600	580	580	580	650	598	565	435	395	435
26	425	565	a600	580	580	580	650	598	565	435	385	435
27	425	580	a630	580	580	598	670	580	550	458	385	458
28	425	550	a630	598	580	598	670	580	565	458	395	470
29	425	550	a630	598	580	598	650	565	550	458	395	470
30	425	550	632	598	-	615	650	565	535	458	385	470
31	425	-	632	598	-	615	-	565	-	458	385	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	12,955	435	395	418	0.717	0.83
November	16,053	580	435	535	.918	1.02
December	18,247	632	550	589	1.01	1.16
Calendar year 1943	235,547	1,010	395	645	1.11	15.03
January	18,732	632	580	604	1.04	1.20
February	17,176	615	580	592	1.02	1.10
March	17,834	615	550	575	.986	1.14
April	18,581	670	598	619	1.06	1.18
May	19,390	670	565	625	1.07	1.23
June	16,065	565	520	536	.919	1.03
July	14,806	520	435	478	.820	.95
August	13,116	458	385	423	.726	.84
September	12,528	470	395	418	.717	.80
Water year 1943-44	195,483	670	385	534	.916	12.48

a No gage-height record; discharge computed on basis of weather records, and records for Pigeon River at Afton and Sturgeon River near Wolverine.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Pigeon River at Afton, Mich.

Location.- Staff gage, lat. 45°22'25", long. 84°30'50", in sec. 2, T. 34 N., R. 2 W., three-quarters of a mile west of Afton, 2 miles downstream from Wilkes Creek, and 5½ miles upstream from Mullett Lake.

Drainage area.- 159 square miles.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge observed during year, 382 second-feet Nov. 9; maximum gage height, 5.08 feet Jan. 10 (backwater from ice); minimum discharge observed, 64 second-feet Aug. 25-27 (gage height, 3.98 feet).

1942-44: Maximum daily discharge, 1,100 second-feet Mar. 31, 1943; maximum gage height, about 10.5 feet Mar. 31, 1943 from floodmarks (ice jam); minimum discharge observed, that of Aug. 25-27, 1944.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read once daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 10		Mar. 11 to Sept. 30	
4.1	72	3.9	51
4.3	126	4.1	85
4.5	186	4.3	127
4.7	250	4.5	180
5.0	362	4.7	245
		5.0	362

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	123	126	115	130	110	134	147	89	109	95	76
2	115	138	126	105	120	105	127	140	89	105	93	81
3	93	132	126	105	120	100	127	150	89	81	93	85
4	77	123	126	105	120	100	125	180	87	72	89	85
5	85	144	126	110	120	90	127	196	95	72	80	89
6	88	168	135	110	115	100	130	196	105	72	78	101
7	80	211	138	105	115	95	166	196	105	74	78	120
8	85	257	129	100	115	90	205	183	101	74	78	127
9	80	358	126	100	115	95	211	180	105	72	78	127
10	80	307	104	105	110	110	218	172	109	76	76	130
11	88	234	85	105	100	152	214	140	109	81	74	127
12	106	224	100	100	100	177	196	130	105	85	74	99
13	98	205	110	100	105	169	172	144	103	85	74	87
14	82	165	95	100	105	137	166	177	116	85	76	93
15	93	153	110	100	110	127	155	186	114	85	76	95
16	104	153	120	100	*110	120	150	160	103	85	71	93
17	106	150	115	100	110	109	147	137	101	81	67	95
18	118	132	115	*100	110	112	142	123	103	76	67	97
19	132	141	115	100	110	112	140	127	127	74	67	85
20	135	156	110	100	110	147	140	130	158	78	67	80
21	141	156	*110	105	105	*127	142	127	172	78	67	83
22	135	156	110	105	100	107	152	116	174	74	67	93
23	138	*147	115	105	100	123	166	114	169	74	67	99
24	153	138	115	105	110	152	180	114	172	74	67	112
25	153	132	120	110	110	189	202	109	180	72	65	114
26	129	126	120	150	110	196	260	109	132	76	64	109
27	120	118	120	200	120	160	310	105	105	107	64	140
28	118	120	115	230	125	140	271	99	105	107	67	180
29	118	126	110	208	120	155	202	91	95	97	67	158
30	109	126	110	168	-	152	172	93	89	97	69	118
31	109	-	115	150	-	152	-	91	-	97	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,383	153	77	109	0.686	0.79
November	5,019	358	118	167	1.05	1.17
December	3,597	138	85	116	.730	.84
Calendar year 1943	57,866	1,100	73	159	1.00	13.54
January	3,701	230	100	119	.748	.86
February	3,250	130	100	112	.704	.76
March	4,010	196	90	129	.811	.94
April	5,249	310	125	175	1.10	1.23
May	4,362	196	91	141	.887	1.02
June	3,506	180	87	117	.736	.82
July	2,575	109	72	83.1	.523	.60
August	2,286	95	64	73.7	.464	.53
September	3,178	180	76	106	.667	.74
Water year 1943-44	44,116	358	64	121	.761	10.30

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 12 to Jan. 27, Jan. 31 to Mar. 10.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Black River near Tower, Mich.

Location.- Water-stage recorder, lat. 45°22'55", long. 84°19'10", in sec. 33, T. 35 N., R. 1 E., 1½ miles upstream from Milligan Creek and 2 miles northwest of Tower.

Drainage area.- 310 square miles.

Records available.- November 1942 to September 1944.

Extremes.- Maximum discharge during year, 671 second-feet Apr. 25; maximum gage height, 4.09 feet Dec. 31 (backwater from ice); minimum discharge, 10 second-feet (regulated) Aug. 26, 27 (gage height, 1.94 feet); minimum daily, 90 second-feet (regulated) Aug. 27.

1943-44: Maximum discharge, 1,660 second-feet Apr. 1, 1943 (gage height, 5.30 feet); minimum, that of Aug. 26, 27, 1944; minimum daily, that of Aug. 27, 1944.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Low and medium flow regulated by power plant at Tower.

Rating tables, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 26		Jan. 27 to Sept. 30	
2.6	120	2.4	90
2.8	177	2.6	139
3.0	246	2.8	193
3.3	369	3.0	257
3.6	521	3.3	372
		3.6	521
		3.8	635

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141	196	210	210	258	237	234	450	170	160	139	126
2	139	213	214	180	222	207	225	350	170	160	140	120
3	137	228	212	180	229	201	217	300	170	160	133	124
4	146	229	214	170	275	227	218	250	220	150	134	140
5	143	240	206	200	232	204	211	230	210	150	129	127
6	142	217	219	200	212	184	196	230	200	143	116	142
7	138	276	219	200	214	168	277	230	200	138	140	170
8	138	356	230	190	235	194	303	220	210	129	132	195
9	144	422	226	150	184	176	344	220	220	120	134	230
10	146	517	225	170	233	180	341	220	230	134	130	137
11	136	511	171	200	218	171	389	220	230	146	125	145
12	131	401	123	200	207	253	358	220	260	188	114	146
13	143	369	200	200	201	266	326	230	300	144	113	141
14	143	302	190	180	201	249	304	250	280	186	126	142
15	138	292	180	180	191	224	293	300	250	170	107	147
16	161	253	190	180	204	203	273	350	220	165	96	168
17	165	250	200	200	*199	194	250	315	200	160	93	159
18	154	222	210	*200	198	230	267	285	220	150	96	155
19	177	241	200	200	203	209	272	264	250	133	100	148
20	192	212	200	200	165	200	260	238	280	138	93	155
21	238	234	210	200	179	232	262	242	335	136	106	204
22	230	234	200	190	205	232	261	244	375	131	103	257
23	236	*239	190	170	195	197	286	241	389	133	98	281
24	232	243	190	200	208	185	351	219	315	142	101	288
25	233	240	190	180	202	259	478	200	331	127	138	278
26	218	234	220	230	211	280	533	200	345	132	98	245
27	196	233	230	320	254	258	588	190	283	136	90	224
28	191	224	200	376	253	244	535	190	250	147	126	264
29	186	229	210	350	251	238	469	180	210	181	104	308
30	178	224	*210	333	-	241	387	180	180	150	108	302
31	188	-	210	293	-	240	-	170	-	143	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,280	238	131	170	0.548	0.63
November	8,281	517	196	276	.890	.99
December	6,299	230	123	203	.655	.76
Calendar year 1943	105,208	1,540	119	288	.929	12.64
January	6,632	376	150	214	.690	.80
February	6,239	275	165	215	.694	.75
March	6,783	280	168	219	.706	.81
April	9,708	588	196	324	1.05	1.17
May	7,628	450	170	246	.794	.92
June	7,503	389	170	250	.806	.90
July	4,582	188	120	148	.477	.55
August	3,580	140	90	115	.371	.43
September	5,668	308	120	189	.610	.68
Water year 1943-44	78,183	588	90	214	.690	9.39

* Winter discharge measurement made on this day.

Note.- No gage-height record May 1-16, May 25 to June 19, June 28 to July 5; discharge computed on basis of weather records and records for Pigeon River at Afton and Sturgeon River near Wolverine. Stage-discharge relation affected by ice Dec. 13 to Jan. 26.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Black River near Cheboygan, Mich.

Location.- Water-stage recorder, lat. 45°30'00", long. 84°19'24", in sec. 21, T. 36 N., R. 1 E., half a mile downstream from Black Lake, 5½ miles upstream from Alverno Dam, and 12 miles southeast of Cheboygan. Datum of gage is 609.26 feet (revised) above mean sea level (levels by Michigan State Department of Conservation). Auxiliary water-stage recorder 3 miles downstream at same datum.

Drainage area.- 597 square miles.

Records available.- November 1942 to September 1944.

Extremes.- Maximum daily discharge during year, 784 second-feet Oct. 13; minimum daily, 21 second-feet Jan. 1, 2, Sept. 10.
1942-44: Maximum daily discharge, 2,070 second-feet Apr. 12, 1943; minimum daily, that of Jan. 1, 2, Sept. 10, 1944.

Remarks.- Records good above 200 second-feet and fair below except those for periods of no gage-height record at the lower gage, which are poor. Discharge computed by using fall as determined by auxiliary water-stage recorder as a factor. Flow affected during most of time by backwater from power plant at Alverno Dam.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	235	h255	268	21	333	a400	399	612	149	211	200	297
2	h232	h314	508	21	410	a400	307	736	153	45	244	203
3	h119	h339	625	312	a400	h383	342	749	153	131	156	142
4	h206	h289	659	238	316	375	359	h783	106	158	132	a280
5	h206	h294	311	209	377	h238	377	h725	268	158	132	a260
6	h148	h378	609	235	342	h281	347	747	330	184	59	a260
7	h119	253	643	260	337	h423	303	435	306	217	121	a300
8	120	312	642	a300	h358	h418	357	589	225	197	135	a280
9	124	369	550	122	h406	h424	304	667	243	61	104	a260
10	123	399	496	a250	h375	a400	335	658	219	198	141	21
11	26	371	a350	a250	h390	a400	381	658	63	183	230	107
12	256	441	374	a250	415	241	385	h741	201	235	191	119
13	784	545	a400	a250	405	377	408	h680	202	227	103	182
14	768	455	a400	a300	378	377	350	h429	188	200	381	154
15	146	456	a400	a250	417	393	383	h489	202	143	270	176
16	h201	431	a380	a100	413	411	375	h515	247	113	528	213
17	h340	370	a380	a300	409	a400	350	h502	123	208	363	70
18	275	307	a380	a300	a410	a400	379	490	269	205	197	90
19	267	363	437	a300	a380	a300	379	h209	543	226	182	127
20	221	353	388	a280	a150	a400	358	208	400	260	70	260
21	174	305	408	a280	a350	a350	379	208	252	191	169	249
22	243	349	414	a260	a350	a300	391	208	280	186	240	98
23	233	326	a420	a200	a350	a350	393	204	384	131	240	165
24	263	338	a400	a300	a350	a400	364	381	260	318	301	70
25	225	h232	a400	353	a350	a400	409	167	80	224	232	171
26	226	h267	134	239	a320	a350	415	200	234	236	181	190
27	258	h427	281	239	a200	415	490	264	228	247	164	277
28	279	297	312	269	a350	411	497	174	337	192	198	221
29	285	265	h293	422	409	340	565	264	253	262	265	257
30	h246	273	h316	271	-	405	337	162	236	138	192	217
31	h58	-	h337	293	-	405	-	179	-	179	326	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,406	784	26	239	0.400	0.46
November	10,373	545	232	346	.580	.65
December	12,915	659	134	417	.698	.80
Calendar year 1943	178,960	2,070	26	490	.821	11.13
January	7,674	422	21	248	.415	.48
February	10,450	417	150	360	.603	.65
March	11,567	424	238	373	.625	.72
April	11,408	565	303	380	.637	.71
May	14,033	783	162	453	.759	.88
June	7,134	543	63	238	.399	.45
July	5,864	318	45	189	.317	.37
August	6,147	528	59	208	.348	.40
September	5,716	300	21	191	.320	.36
Water year 1943-44	110,987	784	21	303	.508	6.93

a No gage-height record at lower gage; discharge computed on the basis of weather records and hourly readings at Alverno Dam.
h Upper gage-height record obtained from once-daily staff gage readings.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Rainy River near Onaway, Mich.

Location.- Staff gage, lat. 45°21'25", long. 84°10'00", in sec. 2, T. 34 N., R. 2 E., 1½ miles downstream from Little Rainy River and 3 miles east of Onaway.

Drainage area.- 79 square miles.

Records available.- January 1942 to September 1944.

Extremes.- Maximum discharge observed during year, 95 second-feet Apr. 25, 26 (gage height, 3.38 feet); minimum, 0.1 second-foot Aug. 15 to Sept. 3; minimum gage height, 1.75 feet Aug. 25.

1942-44: Maximum discharge observed, 668 second-feet Apr. 1, 1943 (gage height, 5.55 feet); minimum observed, that of Aug. 15 to Sept. 3, 1944.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Gage read once daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, discharge, in second-feet)
(Shifting-control method used Oct. 7-18, Sept. 8-21)

Oct. 1 to Apr. 8

1.9	0.6	2.3	8.6	2.8	37
2.0	1.5	2.4	12	3.0	54
2.1	3.0	2.5	18	3.3	87
2.2	5.2	2.6	23		

Apr. 9 to Sept. 30

1.8	0.1	2.3	7.3	2.8	35
1.9	.5	2.4	12	3.0	52
2.0	1.2	2.5	16	3.2	74
2.1	2.4	2.6	22	3.4	101
2.2	4.4	2.7	28		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb	Mar	Apr	May	June	July	Aug.	Sept.
1	0.9	4.5	9.4	3.0	13	9.0	18	53	4.7	2.1	0.4	0.1
2	.8	4.5	8.6	a3.0	9.0	7.0	16	62	4.4	1.7	.4	.1
3	.8	4.3	8.6	a3.0	8.0	6.0	14	68	4.4	1.6	.5	.1
4	.9	4.1	8.6	a3.0	7.0	5.0	16	66	4.4	1.5	.5	.5
5	.9	4.1	9.0	a3.0	6.5	4.5	18	59	4.4	1.6	.5	.8
6	.8	5.2	9.0	a3.0	6.0	4.0	46	56	4.2	1.6	.5	1.1
7	.7	24	10	a3.0	5.5	3.7	64	52	4.0	1.6	.4	1.3
8	.7	48	11	a3.0	5.5	3.5	79	48	4.0	1.7	.3	1.1
9	.7	29	9.8	3.0	5.0	3.5	86	44	3.8	1.7	.2	.8
10	.7	22	8.3	3.0	4.5	3.5	83	39	3.4	.8	.2	.7
11	.7	19	11	2.8	4.5	4.0	80	37	3.2	.5	.2	.6
12	.7	18	6.2	2.7	4.0	24	80	37	3.0	.8	.3	.6
13	.6	16	2.3	2.8	4.0	27	72	37	3.4	.9	.2	.5
14	.6	15	3.5	2.8	3.7	19	55	37	4.0	.7	.2	.4
15	.6	a15	4.5	2.8	3.0	16	48	35	3.8	.5	.1	.4
16	1.3	a14	4.0	2.8	*3.0	9.8	41	33	3.6	.4	.1	.4
17	2.3	14	4.5	3.0	3.0	7.9	35	28	3.6	.4	.1	.4
18	2.3	a14	4.2	*2.8	3.0	7.2	32	26	3.6	.4	.1	.4
19	2.8	14	4.0	3.0	3.0	6.9	29	23	4.7	.4	.1	.3
20	3.0	12	4.5	3.0	2.8	5.9	28	21	5.6	.3	.1	.6
21	3.0	12	*4.0	3.0	3.0	*4.8	28	18	5.0	.3	.1	18
22	3.0	12	4.0	3.0	3.4	4.3	27	16	5.0	.3	.1	11
23	2.8	*11	3.8	3.0	4.5	5.2	32	16	6.4	.4	.1	7.3
24	2.7	11	3.8	3.0	6.0	14	56	15	8.6	.5	.1	5.8
25	2.7	11	3.5	3.2	8.0	50	91	14	7.7	.5	.1	4.7
26	2.7	11	3.5	12	10	34	95	12	6.7	.5	.1	4.4
27	2.8	11	3.5	22	11	42	94	11	5.3	.5	.1	10
28	3.0	10	3.0	25	12	28	91	9.0	4.0	.5	.1	14
29	3.0	10	3.3	25	12	26	78	7.7	2.8	.4	.1	12
30	3.0	9.8	3.0	12	-	25	64	6.7	2.3	.4	.1	12
31	3.4	-	3.0	16	-	20	-	5.3	-	.4	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	54.9	3.4	0.6	1.77	0.022	0.03
November	407.5	48	4.1	13.6	.172	.19
December	179.4	11	2.3	5.79	.073	.08
Calendar year 1943	11,497.4	850	.3	31.5	.399	5.41
January	190.4	25	2.7	6.21	.079	.09
February	173.9	13	2.8	6.00	.076	.09
March	450.7	54	3.5	14.5	.184	.21
April	1,596	95	14	53.2	.673	.75
May	997.7	68	5.3	32.2	.408	.47
June	134.0	8.6	2.3	4.47	.057	.06
July	25.3	2.1	.3	.84	.011	.01
August	6.5	.3	.1	.21	.0027	.003
September	110.4	18	.1	3.68	.047	.05
Water year 1943-44	4,329.3	95	.1	11.8	.149	2.02

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Pigeon River at Afton and Sturgeon River near Wolverine.

Note.- Stage-discharge relation affected by ice Dec. 14-23, Feb. 1-14, 23-26, Mar. 1-11.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Middle Branch Au Sable River at Grayling, Mich.

Location.- Water-stage recorder, lat. 44°39'35", long. 84°42'45", in sec. 7, T. 26 N., R. 3 W., just upstream from bridge on U. S. Highway 27 at Grayling and three-quarters of a mile upstream from East Branch. Datum of gage is 1,123.49 feet above mean sea level, datum of 1929.

Drainage area.- 110 square miles.

Records available.- November 1942 to September 1944.

Extremes.- Maximum discharge during year, 194 second-feet Nov. 9 (gage height, 2.42 feet); minimum, 35 second-feet Aug. 20 (gage height, 0.92 foot).
1942-44: Maximum discharge, 274 second-feet June 2, 1943 (gage height, 3.00 feet); minimum, 34 second-feet Dec. 3, 1943 (gage height, 0.98 feet); minimum gage height, that of Aug. 20, 1944.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Diurnal fluctuation caused by power plant upstream.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.0	41
1.2	58
1.6	100
2.0	145
2.3	181

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	86	88	a76	94	75	88	96	97	70	66	59
2	65	88	86	a78	86	78	85	101	99	67	65	55
3	65	90	85	80	91	79	81	108	97	69	65	54
4	66	93	a86	78	92	76	80	106	85	67	64	61
5	64	109	a86	80	91	67	78	102	78	65	60	60
6	63	119	93	79	81	72	80	113	76	59	63	57
7	63	144	98	75	84	77	86	108	74	61	65	63
8	63	181	96	70	81	67	97	102	71	61	64	63
9	65	181	92	71	82	67	112	108	75	62	54	66
10	65	151	89	80	76	70	119	101	80	60	65	62
11	63	130	79	76	62	80	116	96	78	58	58	57
12	64	120	78	73	a75	96	108	96	77	72	58	58
13	64	115	79	71	a72	98	97	103	77	75	61	58
14	71	111	73	70	a74	92	93	106	86	72	54	67
15	69	111	80	76	a72	89	92	101	84	69	47	68
16	70	94	85	75	70	87	102	96	78	63	48	64
17	73	93	82	75	71	85	80	88	74	60	51	63
18	78	106	81	73	72	78	86	87	73	58	54	65
19	85	98	81	74	69	70	87	84	122	58	49	66
20	86	97	79	76	70	76	85	82	144	58	45	84
21	89	102	80	76	74	82	101	85	122	58	51	91
22	99	98	74	76	76	78	111	87	94	56	47	89
23	100	89	67	73	78	75	112	80	107	55	54	77
24	92	89	76	74	76	81	131	79	152	59	53	78
25	88	91	81	74	75	103	151	78	133	63	47	71
26	82	90	79	89	82	97	137	75	107	67	47	70
27	78	90	79	111	87	94	126	72	87	92	49	67
28	78	90	78	124	85	91	110	70	81	90	57	71
29	77	87	71	134	84	94	104	68	77	79	56	74
30	76	87	69	111	-	90	96	66	73	75	55	73
31	77	-	a72	108	-	86	-	68	-	70	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,301	100	63	74.2	0.675	0.78
November	3,230	181	86	108	.982	1.10
December	2,522	98	67	81.4	.740	.85
Calendar year 1943	32,272	260	54	88.4	.804	10.92
January	2,556	134	70	82.5	.750	.86
February	2,282	94	62	78.7	.715	.77
March	2,550	103	67	82.3	.748	.86
April	3,031	151	78	101	.918	1.02
May	2,812	113	66	90.7	.825	.95
June	2,758	152	71	91.9	.835	.93
July	2,048	92	55	66.1	.601	.69
August	1,731	66	45	55.8	.507	.58
September	2,011	91	54	67.0	.609	.68
Water year 1943-44	29,832	181	45	81.5	.741	10.07

a No gage-height record; discharge computed on basis of weather records and records for Manistee River near Grayling and Higgins Lake Outlet near Roscommon.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Rifle River at Michigan Highway 70, near Sterling, Mich.

Location.- Water-stage recorder, lat. 44°04', long. 84°02', in sec. 5, T. 19 N., R. 4 E., at bridge on State Highway 70, 3 miles north of Sterling.

Drainage area.- 320 square miles.

Records available.- January 1937 to September 1944.

Extremes.- Maximum discharge during year, 1,080 second-feet Apr. 25, but may have been more during period of ice effect; maximum gage height, 7.32 feet Mar. 13 (backwater from ice); minimum discharge (regulated), 105 second-feet Aug. 12, 14, 22, 23 (gage height, 1.27 feet).

1937-44: Maximum discharge, 3,610 second-feet June 2, 1943; maximum gage height, 13.90 feet, Mar. 25, 1943 (backwater from ice); minimum discharge (regulated), that of Aug. 12, 14, 22, 23, 1944.

Remarks.- Records good except those for period of ice effect, which are fair. Diurnal fluctuation during low flow caused by power plant above station.

Rating table, water year 1943-44, except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.3	109	3.5	570
1.5	138	4.5	865
2.0	224	4.9	1,000
2.5	327		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	165	274	226	160	200	400	349	396	420	164	146	201
2	165	294	228	160	200	350	360	445	305	172	149	172
3	177	234	224	160	200	300	360	408	253	154	138	156
4	152	232	222	160	180	280	360	482	222	146	138	149
5	148	253	226	160	180	260	349	458	211	148	149	164
6	149	349	247	160	180	250	349	558	205	141	146	146
7	173	408	305	150	170	240	850	520	213	144	130	160
8	157	700	305	150	170	235	820	408	192	143	124	160
9	167	570	255	150	170	230	730	458	198	195	126	141
10	175	432	261	150	170	230	655	408	274	183	126	151
11	159	360	237	150	170	250	570	384	284	144	123	136
12	192	305	220	150	170	375	470	384	201	230	129	135
13	156	294	210	160	170	700	432	432	226	294	135	151
14	192	284	200	160	170	500	396	384	295	204	120	154
15	184	259	200	160	170	400	360	349	420	184	119	154
16	205	253	*200	170	*170	350	338	327	261	152	122	152
17	214	237	190	170	170	320	360	316	224	149	154	159
18	209	235	180	170	170	300	338	284	218	146	154	170
19	224	249	180	180	170	290	349	274	458	148	140	165
20	201	245	180	*180	180	280	327	274	562	149	138	146
21	196	257	170	180	180	280	372	263	316	146	136	184
22	196	255	160	170	190	280	432	294	224	128	134	173
23	205	253	150	170	190	294	445	294	230	136	134	164
24	205	239	150	170	200	420	790	274	363	185	141	157
25	198	235	160	170	230	730	1,000	257	445	150	141	146
26	198	234	160	180	350	515	935	316	349	163	123	151
27	192	239	160	220	900	360	760	294	263	201	132	162
28	191	239	160	300	700	338	570	257	224	189	136	196
29	187	224	160	300	500	396	495	232	201	170	156	249
30	184	226	150	250	-	420	458	203	187	177	144	192
31	209	-	150	220	-	384	-	387	-	172	151	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,725	224	148	185	0.578	0.67
November	8,868	700	224	296	.925	1.03
December	6,226	305	150	201	.628	.72
Calendar year 1943	143,994	3,410	148	395	1.23	16.74
January	5,540	300	150	179	.559	.64
February	6,970	900	170	240	.750	.81
March	10,957	730	230	353	1.10	1.27
April	15,379	1,000	327	513	1.60	1.78
May	11,020	558	203	355	1.11	1.28
June	8,444	562	187	281	.878	.98
July	5,207	294	128	168	.525	.61
August	4,234	156	119	137	.428	.49
September	4,896	249	135	163	.509	.57
Water year 1943-44	93,466	1,000	119	255	.797	10.85

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 12 to Mar. 22.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Shiawassee River at Owosso, Mich.

Location.- Water-stage recorder, lat. 43°00'54", long. 84°10'52", in SW¼ sec. 12, T. 7 N., R. 2 E., a quarter of a mile north of Owosso. Datum of gage is 707.25 feet above mean sea level, datum of 1929.

Drainage area.- 538 square miles.

Records available.- March 1931 to September 1944.

Average discharge.- 11 years (1931-33, 1935-44), 277 second-feet.

Extremes.- Maximum discharge during year, 2,750 second-feet Feb. 27 (gage height, 6.98 feet); minimum, 18 second-feet (regulated) Sept. 7; minimum gage height, 1.63 feet July 24; minimum daily, 32 second-feet (regulated) Sept. 13.

1931-44: Maximum discharge, 4,230 second-feet Mar. 17, 1942 (gage height, 8.74 feet); minimum, 0.2 second-foot (regulated) July 27, 1934 (gage height, 1.12 feet); minimum daily, 2.0 second-feet (regulated) July 28, 1934.

Maximum stage known, 726 feet above mean sea level, at site of former gage, during ice jam in 1918.

Remarks.- Records good except those for period of ice effect, which are fair. Flow regulated by power plant at Shiawasseetown.

Cooperation.- Water-stage recorder inspected by employee of city of Owosso.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	151	177	75	130	1,240	780	372	270	89	55	59
2	121	148	150	70	130	1,120	758	362	273	87	48	41
3	106	164	149	70	130	895	645	372	222	85	41	41
4	104	169	159	60	160	758	565	365	204	79	61	59
5	84	188	153	70	140	585	545	365	178	79	57	57
6	103	167	161	75	150	758	489	481	159	75	57	a46
7	112	245	151	75	170	565	469	501	165	69	59	39
8	101	275	158	75	170	431	509	466	159	71	53	41
9	103	324	184	72	160	431	525	565	153	48	42	48
10	91	383	176	70	160	408	525	605	118	36	45	42
11	105	358	150	75	140	419	802	605	140	36	49	48
12	88	337	130	80	120	497	1,120	525	110	38	41	48
13	94	311	110	80	140	454	995	469	114	77	42	32
14	112	307	94	80	160	419	970	435	125	53	46	60
15	108	285	100	80	*140	427	1,040	379	129	71	48	59
16	139	266	90	80	130	606	1,220	351	112	69	46	55
17	137	269	95	80	120	1,020	1,020	372	106	65	55	63
18	169	260	80	70	125	848	945	404	106	69	61	65
19	149	266	95	75	125	645	825	404	108	46	50	59
20	151	269	90	80	125	493	758	404	106	57	51	46
21	155	263	85	80	130	493	690	387	149	67	55	50
22	157	257	80	*80	140	431	625	1,690	138	67	59	51
23	148	231	80	80	250	484	605	1,310	123	81	41	51
24	140	236	80	75	400	565	585	895	123	44	40	46
25	145	234	80	70	690	545	585	780	142	45	52	51
26	121	231	80	80	998	525	585	645	140	48	57	53
27	131	222	80	100	2,200	525	545	525	103	50	53	41
28	132	211	70	130	1,560	577	505	438	97	44	67	77
29	143	211	80	170	1,300	1,120	466	390	95	51	46	87
30	140	183	80	200	-	1,180	416	334	93	53	44	61
31	134	-	80	180	-	870	-	334	-	61	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,831	169	84	124	0.230	0.27
November	7,421	383	148	247	.459	.51
December	3,527	184	70	114	.212	.24
Calendar year 1943	185,979	3,760	70	510	.948	12.86
January	2,737	200	60	88.3	.164	.19
February	10,493	2,200	120	362	.673	.73
March	20,334	1,240	408	656	1.22	1.41
April	21,112	1,220	416	704	1.31	1.46
May	16,530	1,690	334	533	.991	1.14
June	4,260	273	93	142	.264	.29
July	1,910	89	36	61.6	.114	.13
August	1,574	61	40	50.8	.094	.11
September	1,576	87	32	52.5	.098	.11
Water year 1943-44	95,305	2,200	32	260	.483	6.59

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Dec. 11 to Feb. 24.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Shiawassee River near Fergus, Mich.

Location.- Wire-weight gage, lat. 43°15'17", long. 84°06'20", in sec. 22, T. 10 N., R. 3 E., at highway bridge, 1 1/5 miles east of Fergus and 1¾ miles upstream from Bear Creek. Datum of gage is 587.80 feet above mean sea level, datum of 1929.

Drainage area.- 637 square miles.

Records available.- January 1940 to September 1944.

Extremes.- Maximum discharge observed during year, 3,350 second-feet Feb. 27 (gage height, 11.41 feet); minimum observed, 41 second-feet Aug. 5 (gage height, 3.11 feet).
1940-44: Maximum daily discharge, 4,100 second-feet June 3, 1943 (includes overflow bypassing gage); maximum gage height observed, 12.29 feet Mar. 16, 1943 (affected by ice); minimum discharge observed, 35 second-feet Aug. 11, 13, 1941 (gage height 2.68 feet).

Remarks.- Records fair. Gage read twice daily.

Rating table, Feb. 28 to Sept. 30, 1944 (gage height, in feet, and discharge, in second-feet)

3.1	41	5.5	246	9.5	1,750
3.3	50	6.0	324	10.5	2,510
3.7	72	6.7	482	11.2	3,150
4.2	107	7.5	715		
4.8	163	8.5	1,150		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	155	232	85	175	2,190	982	482	375	90	52	56
2	112	160	220	85	150	1,960	982	432	334	90	59	61
3	112	165	170	85	150	1,720	830	408	282	88	54	57
4	112	175	155	80	170	1,340	698	397	208	86	50	56
5	97	180	170	75	200	1,050	635	408	202	82	44	56
6	90	197	180	80	180	1,000	605	456	186	77	60	61
7	90	202	186	90	200	1,000	562	521	174	75	51	60
8	100	274	175	90	200	698	576	548	174	72	45	52
9	94	306	180	85	200	605	635	605	168	69	54	48
10	94	354	197	85	180	665	698	680	174	64	51	50
11	97	375	165	90	180	665	892	635	148	54	43	52
12	100	354	140	80	150	830	1,220	620	153	51	48	50
13	90	334	115	90	130	770	1,180	548	123	49	46	55
14	94	324	92	90	170	698	1,080	469	128	65	43	52
15	108	315	*100	90	*210	698	1,260	469	134	56	45	46
16	120	298	96	80	180	850	1,640	397	138	62	46	61
17	150	282	105	85	180	1,370	1,280	386	119	68	48	58
18	160	290	115	90	160	1,050	1,100	469	115	65	55	62
19	170	290	120	80	150	870	982	432	111	64	61	67
20	150	282	100	85	155	850	870	469	115	61	52	61
21	150	282	95	90	160	732	810	432	115	54	50	54
22	155	290	90	*90	170	534	750	1,110	153	59	50	51
23	160	282	85	90	250	534	680	1,960	153	65	54	52
24	150	260	85	90	500	698	698	1,250	134	82	56	54
25	150	253	85	90	900	620	698	938	128	59	48	54
26	150	260	85	90	1,520	635	698	770	128	52	61	53
27	142	260	90	105	3,150	620	665	635	153	48	58	57
28	142	253	85	130	3,150	620	590	534	111	50	55	64
29	142	246	75	160	2,430	830	548	456	98	52	56	77
30	150	246	90	200	-	1,750	521	408	91	60	65	88
31	146	-	90	220	-	1,150	-	375	-	54	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,885	170	90	125	0.196	0.23
November	7,944	375	155	265	.416	.46
December	3,968	232	75	128	.201	.23
Calendar year 1943	221,402	4,100	75	607	.953	12.91
January	3,055	220	75	98.5	.155	.18
February	15,700	3,150	130	541	.849	.92
March	29,602	2,190	534	955	1.50	1.73
April	25,365	1,640	521	846	1.33	1.48
May	18,699	1,960	375	603	.947	1.09
June	4,824	375	91	161	.253	.28
July	2,023	90	48	65.3	.103	.12
August	1,612	65	43	52.0	.082	.09
September	1,725	88	46	57.5	.090	.10
Water year 1943-44	118,402	3,150	43	324	.509	6.91

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 12 to Feb. 25.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Flint River at Genesee, Mich.

Location.- Wire-weight gage, lat. 43°06'25", long. 83°37'00", in sec. 10, T. 8 N., R. 7 E., at highway bridge at Genesee, three-quarters of a mile downstream from Butternut Creek. Datum of gage is 695.27 feet above mean sea level, datum of 1929.

Drainage area.- 593 square miles.

Records available.- March 1931 to September 1944.

Average discharge.- 13 years, 310 second-feet.

Extremes.- Maximum discharge observed during year, 2,350 second-feet Mar. 2 (gage height, 20.66 feet); minimum observed, 37 second-feet Aug. 15, 16 (gage height, 12.82 feet).

1931-44: Maximum discharge observed, 4,800 second-feet Mar. 19, 1942 (gage height, 24.49 feet); minimum observed, about 10 second-feet Aug. 15, 1936.

Remarks.- Records fair prior to Aug. 13 and good thereafter. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	64	121	140	58	250	2,250	1,000	544	250	109	56	53
2	71	141	145	59	230	2,250	875	520	250	106	56	52
3	71	179	140	60	270	1,760	800	500	400	100	56	50
4	70	201	150	60	260	1,520	700	470	992	106	53	51
5	68	214	162	60	250	1,250	625	450	1,250	102	52	65
6	74	204	177	60	230	856	575	560	992	97	52	63
7	66	259	174	60	210	726	520	510	778	94	53	65
8	56	352	199	62	200	652	500	500	628	93	53	64
9	59	424	204	65	180	580	600	540	532	94	54	60
10	63	448	193	60	170	592	800	625	448	94	57	54
11	65	436	160	60	160	700	1,000	700	376	78	53	53
12	75	412	140	60	150	726	1,400	575	329	90	52	52
13	70	376	*117	60	140	726	1,200	460	296	98	a46	54
14	70	340	115	60	*130	752	1,100	352	281	108	39	56
15	64	268	110	60	130	752	1,000	307	237	110	38	56
16	86	249	100	60	130	778	1,080	296	206	96	38	56
17	106	247	85	60	130	1,200	1,050	281	191	86	47	57
18	115	225	70	*65	130	1,100	1,020	272	179	79	54	56
19	150	214	60	65	140	975	936	350	177	76	56	53
20	167	204	65	65	165	900	856	500	184	76	51	52
21	167	203	70	65	200	900	778	750	177	82	46	52
22	162	197	65	66	250	800	752	1,500	167	84	46	48
23	158	182	62	70	400	726	604	1,250	152	80	47	45
24	153	172	62	75	700	726	508	1,000	150	78	48	44
25	137	158	62	80	908	726	580	900	140	69	46	45
26	133	140	62	90	1,130	726	778	800	130	66	46	44
27	126	137	62	130	2,100	752	752	600	120	66	47	47
28	127	153	62	200	2,000	752	700	475	112	66	52	65
29	121	150	60	230	2,050	936	604	375	118	64	52	71
30	120	140	58	250	-	1,300	544	325	114	65	56	75
31	121	-	58	270	-	1,150	-	275	-	59	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,155	167	56	102	0.172	0.20
November	7,146	448	121	238	.401	.45
December	3,389	204	58	109	.184	.21
Calendar year 1943	194,703	3,540	56	533	.899	12.20
January	2,745	270	58	88.5	.149	.17
February	13,393	2,100	130	462	.779	.84
March	30,539	2,250	580	985	1.66	1.91
April	24,237	1,400	500	808	1.36	1.52
May	17,562	1,500	272	567	.956	1.10
June	10,356	1,250	112	345	.582	.65
July	2,671	110	59	86.2	.145	.17
August	1,554	57	38	50.1	.084	.10
September	1,658	75	44	55.3	.093	.10
Water year 1943-44	118,405	2,250	38	324	.546	7.42

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Dec. 11 to Feb. 24. Doubtful gage-height records Mar. 17-22, Mar. 30 to Apr. 15, May 2-12, May 19 to June 3; discharge computed on basis of weather records and records for Flint River near Flint and Farmers Creek at Lapeer.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Flint River near Flint, Mich.

Location.- Water-stage recorder, lat. 43°02'20", long. 83°46'10", in SW¼ sec. 4 T. 7 N., R. 6 E., at sewage-treatment plant 2 miles downstream from Flint and 5 miles downstream from Swartz Creek. Datum of gage is 678.80 feet above mean sea level (levels by U. S. Weather Bureau and city of Flint).

Drainage area.- 927 square miles.

Records available.- August 1932 to September 1944.

Average discharge.- 12 years, 462 second-feet.

Extremes.- Maximum discharge during year, 4,100 second-feet Feb. 27 (gage height, 8.53 feet); minimum, 36 second-feet Aug. 14 (gage height, 2.24 feet).
1932-44: Maximum discharge, 8,810 second-feet June 2, 1943 (gage height, 12.95 feet); minimum, 9.0 second-feet Aug. 7, 1934.

Remarks.- Records good except those for period of ice effect or no gage-height record, which are fair. Some regulation by reservoirs above station. City of Flint diverts water above station for municipal and industrial use, but sewage from city is included in flow at station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	176	195	90	350	2,430	1,580	620	414	115	62	68
2	118	229	172	90	250	2,350	1,580	605	427	109	60	60
3	92	222	269	120	350	1,990	1,400	605	888	107	58	61
4	107	249	137	80	400	1,480	1,160	615	895	101	62	117
5	105	292	198	95	400	895	1,070	805	1,280	101	73	82
6	107	292	237	105	350	950	868	1,010	1,100	93	60	95
7	158	522	253	100	350	895	785	840	895	90	64	90
8	90	548	283	95	325	610	950	785	730	86	59	74
9	76	562	296	95	300	553	1,010	1,010	544	47	57	72
10	76	571	332	95	275	540	1,400	922	576	69	57	65
11	93	600	205	95	250	481	1,480	840	490	77	52	68
12	91	571	180	95	240	705	1,950	840	418	177	47	64
13	134	548	170	90	200	980	1,760	840	310	126	43	71
14	86	512	*170	90	*150	840	1,580	705	355	119	45	74
15	95	476	170	90	175	895	1,780	530	328	128	47	66
16	167	325	150	90	210	1,370	2,190	530	360	113	53	71
17	176	314	130	95	210	2,030	1,830	499	285	103	134	83
18	197	328	110	95	210	1,650	1,580	499	280	91	82	79
19	201	310	90	*95	200	1,480	1,370	605	294	82	66	70
20	211	306	120	95	200	1,280	1,190	680	208	79	62	66
21	225	301	120	100	210	1,280	1,100	755	208	88	61	64
22	241	301	110	100	325	1,070	1,070	1,990	201	88	55	62
23	237	292	100	100	700	980	1,010	1,510	208	88	57	56
24	233	283	95	105	1,100	1,130	980	1,340	185	93	62	56
25	211	261	90	110	1,340	1,070	950	1,280	176	82	58	56
26	198	253	95	120	2,070	1,100	950	1,070	171	77	57	57
27	188	253	100	175	3,700	1,100	950	868	150	82	54	a70
28	188	245	100	290	2,680	1,190	785	758	142	79	87	a150
29	176	245	100	305	2,190	1,950	705	655	130	71	86	94
30	179	241	95	350	-	2,110	655	486	124	70	64	84
31	165	-	90	400	-	1,720	-	400	-	71	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,732	241	76	153	0.165	0.19
November	10,628	600	176	354	.382	.43
December	4,962	332	90	160	.173	.20
Calendar year 1943	324,495	7,380	76	889	.959	13.00
January	4,060	400	80	131	.141	.16
February	19,710	3,700	150	680	.734	.79
March	39,104	2,430	481	1,261	1.36	1.57
April	37,668	2,190	655	1,256	1.35	1.51
May	25,497	1,990	400	822	.887	1.02
June	12,772	1,280	124	426	.460	.51
July	2,902	177	47	93.6	.101	.12
August	1,960	134	43	63.2	.068	.08
September	2,245	150	56	74.8	.081	.09
Water year 1943-44	166,230	3,700	43	454	.490	6.67

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Flint River near Fosters and Shiawassee River at Owosso.
Note.- Stage-discharge relation affected by ice Dec. 12 to Feb. 24.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Flint River near Fosters, Mich.

Location.- Wire-weight gage, lat. 43°17'56", long. 83°55'58", in sec. 6, T. 10 N., R. 5 E., at bridge on Sheridan Road, 1 mile west of Fosters and 4 miles downstream from Silver Creek. Datum of gage is 582.22 feet above mean sea level (levels by U. S. Weather Bureau).

Drainage area.- 1,120 square miles.

Records available.- January 1940 to September 1944.

Extremes.- Maximum discharge observed during year, 5,660 second-feet Feb. 27 (gage height, 17.23 feet); minimum observed, 39 second-feet Aug. 16 (gage height, 3.83 feet).

1940-44: Maximum daily discharge, 11,000 second-feet Mar. 17, 1942 (including unmeasured flow bypassing gage); maximum gage height observed, 17.80 feet Mar. 16, 1943; minimum discharge observed, 27 second-feet Aug. 6, 1941 (gage height, 3.67 feet).

Maximum stage known, about 18.4 feet (from U. S. Weather Bureau data) in March 1904.

Remarks.- Records good except those for period of ice effect, which are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	214	275	115	400	2,640	1,940	594	760	131	79	83
2	119	240	214	115	420	2,690	1,840	710	785	130	78	83
3	128	293	240	110	450	2,370	1,630	660	594	118	72	71
4	104	275	311	115	470	1,770	1,350	660	1,090	124	68	80
5	108	302	177	115	450	1,010	1,130	935	1,100	130	68	124
6	114	330	248	120	400	935	1,040	1,190	1,420	110	71	106
7	109	410	311	120	400	1,190	785	1,040	1,010	108	71	110
8	119	700	320	115	350	885	885	935	860	102	64	113
9	118	650	311	115	350	685	1,070	1,040	685	101	64	91
10	87	650	330	115	350	594	1,380	1,280	594	91	58	85
11	83	650	275	120	300	572	1,770	985	572	70	58	79
12	98	650	231	115	250	735	2,330	910	495	101	57	72
13	105	625	200	110	265	985	2,290	885	442	257	48	78
14	190	575	200	110	280	1,130	1,940	910	392	152	47	83
15	130	525	200	115	*240	835	1,840	660	392	128	44	85
16	104	440	170	115	200	1,280	2,990	616	362	133	44	75
17	214	275	150	115	275	2,490	2,590	550	372	131	81	75
18	240	360	140	110	270	2,370	1,980	572	332	124	152	94
19	248	360	130	*110	260	2,170	1,770	550	352	102	149	95
20	248	350	140	110	250	1,700	1,280	935	293	97	81	83
21	257	340	130	110	275	1,280	1,220	860	248	92	74	78
22	266	330	120	110	300	1,280	1,190	2,350	239	94	70	74
23	284	330	120	115	600	985	1,130	3,280	239	95	71	68
24	266	320	115	120	1,200	1,250	1,100	2,090	239	98	72	62
25	266	311	120	130	2,200	1,160	1,100	1,630	216	95	70	67
26	257	302	120	160	2,740	1,070	1,070	1,490	201	104	71	66
27	240	293	115	250	5,160	1,160	1,010	1,320	192	97	74	71
28	231	293	115	400	4,140	1,320	960	860	172	92	94	84
29	222	284	115	450	3,220	2,170	810	760	154	91	102	214
30	211	275	115	430	-	3,220	616	616	157	81	90	144
31	212	-	120	450	-	2,450	-	528	-	76	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,510	284	83	178	0.159	0.18
November	11,952	700	214	398	.355	.40
December	5,878	330	115	190	.170	.20
Calendar year 1943	398,443	9,000	83	1,092	.975	13.24
January	5,010	450	110	162	.145	.17
February	28,465	5,160	280	913	.815	.88
March	46,381	3,220	572	1,496	1.34	1.54
April	44,036	2,990	616	1,468	1.31	1.46
May	32,401	3,280	528	1,045	.933	1.08
June	14,959	1,420	154	499	.446	.50
July	3,455	257	70	111	.099	.11
August	2,332	152	44	75.2	.067	.08
September	2,693	214	62	89.8	.080	.09
Water year 1943-44	201,072	5,160	44	549	.490	6.69

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 13 to Feb. 25.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Farmers Creek near Lapeer, Mich.

Location.- Staff gage and concrete control, lat. 43°02', long. 83°20', at sewage-treatment plant at Michigan Home and Training School, 2 miles west of Lapeer, Lapeer County. Datum of gage is 806.48 feet above mean sea level.

Drainage area.- 57 square miles.

Records available.- March 1933 to September 1944.

Average discharge.- 11 years, 24.4 second-feet.

Extremes.- Maximum discharge observed during year, 285 second-feet Feb. 28 (gage height, 17.28 feet); minimum observed, 0.6 second-foot Aug. 13-17 (gage height, 14.92 feet).
1933-44: Maximum observed, 793 second-feet June 3, 1943 (gage height, 19.74 feet); minimum not determined.

Remarks.- Records good except those below 3.0 second-feet and those for periods of ice effect, which are fair. Gage read twice daily. Occasional regulation by dam above station.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

14.9	0.4	15.3	10	15.8	50
15.0	1.6	15.4	16	16.0	76
15.1	3.5	15.5	22	16.5	149
15.2	6.4	15.6	30	17.2	267

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	11	11	4.2	22	124	76	38	24	4.2	1.6	2.2
2	4.5	13	11	4.5	15	84	63	39	23	3.9	1.4	1.8
3	3.9	14	11	4.5	17	63	58	41	36	3.9	1.4	2.0
4	3.5	15	12	4.8	18	52	55	42	83	3.1	1.4	2.2
5	3.5	17	12	5.4	20	56	48	46	110	3.1	1.2	2.0
6	3.5	18	13	5.7	20	39	44	50	83	2.6	1.0	2.7
7	3.5	24	15	5.7	20	34	42	50	56	2.4	1.4	3.1
8	3.5	29	16	5.7	18	33	43	52	41	2.4	1.4	2.9
9	3.1	36	17	5.6	16	30	52	56	35	2.6	1.4	2.9
10	2.9	43	17	5.4	15	24	76	62	31	2.7	1.4	a2.7
11	3.1	42	15	5.2	13	28	94	63	32	2.9	1.2	2.4
12	3.1	38	13	5.0	11	29	112	55	26	3.1	.9	2.4
13	2.9	34	*12	4.8	10	35	124	47	24	3.5	.7	2.4
14	2.7	29	10	4.5	10	39	112	42	22	3.5	.6	2.4
15	2.7	25	9.0	4.2	10	43	97	38	20	3.9	.6	2.4
16	3.4	24	7.5	4.3	9.9	55	93	34	17	3.9	.6	2.7
17	5.1	21	6.5	4.4	9.5	98	97	32	16	3.4	1.2	a2.8
18	8.7	19	5.0	4.5	9.8	83	93	29	13	2.7	2.0	2.9
19	12	18	4.5	5.4	10	73	79	34	16	2.7	2.0	2.9
20	14	17	5.7	5.7	11	58	68	52	12	2.7	1.6	2.6
21	14	17	5.7	6.4	12	49	61	72	12	2.7	1.6	2.2
22	16	17	5.4	6.4	13	43	58	97	10	2.4	1.6	1.8
23	16	16	4.5	6.4	17	47	56	149	10	2.2	1.6	1.8
24	15	16	4.2	6.1	21	47	56	168	9.5	2.4	2.2	2.0
25	14	14	3.5	7.9	46	60	58	119	9.5	2.4	2.2	2.0
26	14	13	3.5	9.9	134	48	57	86	9.5	1.8	2.0	2.2
27	14	12	3.7	13	205	61	54	70	7.5	2.0	2.4	2.4
28	13	12	4.0	17	267	63	50	50	6.4	2.0	2.0	3.1
29	12	12	4.2	24	187	68	46	39	5.4	2.0	1.6	3.7
30	11	12	4.2	30	-	72	40	33	4.5	1.8	1.6	3.7
31	12	-	4.2	38	-	90	-	28	-	1.6	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	245.1	16	2.7	7.91	0.139	0.16
November	628	43	11	20.9	.367	.41
December	270.3	17	3.5	8.72	.153	.18
Calendar year 1943	17,586.3	745	2.7	48.2	.846	11.49
January	264.9	38	4.2	8.55	.150	.17
February	1,187.2	267	9.5	40.9	.718	.77
March	1,728	124	24	55.7	.977	1.13
April	2,062	124	40	68.7	1.21	1.35
May	1,813	168	28	58.5	1.03	1.19
June	804.3	110	4.5	26.8	.470	.52
July	86.5	4.2	1.6	2.79	.049	.06
August	45.9	2.4	.6	1.48	.026	.03
September	75.3	3.7	1.8	2.51	.044	.05
Water year 1943-44	9,210.5	267	.6	25.2	.442	6.02

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Dec. 12-19, 28-31, Jan. 9-17, Feb. 2, 3, 8-14, 18-20.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

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Tittabawassee River at Midland, Mich.

Location.- Water-stage recorder, lat. 40°36', long. 84°15', in NE¼ sec. 28, T. 14 N., R. 2 E., 0.5 mile south of Midland and 1 mile downstream from Chippewa River. Datum of gage is 590.28 feet above mean sea level, datum of 1929.

Drainage area.- 2,400 square miles.

Records available.- March 1936 to September 1944.

Extremes.- Maximum discharge during year, 5,780 second-feet Feb. 28 (gage height, 7.43 feet); minimum, 63 second-feet (regulated) July 6 (gage height, -0.40 foot).
1936-44: Maximum discharge, 26,000 second-feet Mar. 18, 1942 (gage height, 17.07 feet); minimum, 39 second-feet (regulated) Oct. 12, 1942; minimum gage height, that of July 6, 1944.

Remarks.- Records good except those for period of no gage-height record, which are fair. Water is diverted from river a short distance above station for industrial use; small part returned to river a quarter of a mile below station; remainder returned 1 mile below and below control. Records of daily discharge not adjusted for diversion. Low flow regulated by power plants above station.

Cooperation.- Gage-height record and records of diversion furnished by Dow Chemical Co.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	306	456	834	266	926	2,080	2,950	2,240	1,090	215	512	a350
2	236	395	698	243	839	1,850	2,160	1,410	837	212	387	a260
3	232	918	856	450	754	2,120	2,900	1,720	820	336	487	a200
4	320	1,040	638	592	756	1,330	2,930	2,030	861	308	518	a300
5	566	686	379	892	759	726	2,620	2,170	612	272	239	a600
6	666	800	811	542	574	921	2,300	2,450	753	242	160	a550
7	594	922	1,050	452	444	946	2,120	2,450	360	358	150	a500
8	555	2,500	1,230	364	631	642	2,380	2,600	334	224	417	a350
9	374	2,340	1,010	310	607	603	1,770	2,510	596	569	364	a178
10	554	1,940	1,110	432	827	589	2,260	2,660	658	288	468	178
11	308	1,660	621	454	594	476	2,760	2,380	470	170	305	312
12	728	1,980	514	550	235	986	3,070	2,210	878	226	205	481
13	592	1,440	344	648	215	1,640	2,690	1,940	798	302	126	461
14	327	1,170	491	744	426	1,910	2,360	1,400	1,070	400	136	488
15	397	702	584	405	396	1,700	2,480	1,970	1,010	481	250	196
16	526	705	342	266	650	1,560	2,100	1,860	1,300	242	294	193
17	448	864	367	307	752	2,070	2,020	1,500	755	362	286	224
18	760	891	425	388	512	2,040	2,220	1,800	918	506	160	260
19	714	952	434	890	410	1,520	2,040	2,100	1,640	300	129	280
20	703	916	528	827	317	1,060	2,080	1,980	857	454	123	488
21	384	583	656	487	546	1,040	2,560	1,930	1,660	250	143	507
22	1,090	978	765	384	1,150	1,370	1,940	2,060	1,210	164	323	408
23	786	1,130	732	278	1,330	1,760	1,420	1,160	1,560	196	460	488
24	386	971	934	317	872	1,460	3,000	2,340	748	324	375	213
25	446	809	304	548	1,280	1,920	3,080	2,260	448	317	580	214
26	716	812	338	591	1,800	2,060	3,020	1,940	512	326	255	209
27	756	960	418	1,160	4,780	2,000	3,040	1,820	653	394	180	732
28	994	447	333	1,330	5,240	1,730	3,260	982	702	226	232	564
29	819	696	348	1,410	3,220	2,620	2,780	1,240	525	300	207	510
30	312	914	463	624	-	4,470	1,270	745	246	285	146	462
31	727	-	448	1,010	-	3,930	-	976	-	532	366	-

Month	Observed				Mean diversion (second-feet)†	Adjusted for diversion		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	17,322	1,090	232	559	86	645	0.269	0.31
November	31,577	2,500	395	1,053	75	1,128	.470	.52
December	19,005	1,230	304	613	72	685	.285	.33
Calendar year 1943	749,767	15,700	169	2,054	87	2,141	.892	12.09
January	18,161	1,410	243	586	72	658	.274	.32
February	31,842	5,240	215	1,098	72	1,170	.488	.53
March	51,129	4,470	476	1,649	72	1,721	.717	.83
April	73,580	3,260	1,270	2,453	78	2,531	1.05	1.17
May	58,833	2,660	745	1,898	89	1,987	.828	.95
June	24,881	1,660	246	829	103	932	.388	.43
July	9,781	569	164	316	105	421	.175	.20
August	8,983	580	123	290	113	403	.168	.19
September	11,156	732	178	372	108	480	.200	.22
Water year 1943-44	356,250	5,240	123	973	87	1,060	.442	6.00

† Diversion by Dow Chemical Co. for industrial use.
a No gage-height record; discharge computed on basis of records for Chippewa River near Mount Pleasant.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Salt River near North Bradley, Mich.

Location.- Wire-weight gage, lat. 43°42', long. 84°28', on bridge on U. S. Highway 10, 1½ miles southeast of North Bradley.

Drainage area.- 138 square miles.

Records available.- June 1934 to September 1944.

Average discharge.- 10 years, 65.6 second-feet.

Extremes.- Maximum discharge observed during year, 480 second-feet Mar. 30; maximum gage height observed, 8.60 feet Feb. 27 (backwater from ice); minimum discharge observed, 1.1 second-feet Aug. 14 (gage height, 0.21 foot).

1934-44: Maximum discharge observed, 4,460 second-feet Feb. 7, 14, 1938; maximum gage height, 13.77 feet Feb. 6, 1938 (backwater from ice); minimum discharge observed, that of Aug. 14, 1944.

Remarks.- Records good except those below 10 second-feet and those for periods of ice effect, which are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	16	14	8.5	12	110	142	37	19	5.7	6.1	8.6
2	11	17	13	9	11	85	225	36	25	6.1	6.6	8.2
3	11	16	13	9	10	70	187	37	52	5.7	4.9	8.6
4	11	13	14	9	10	60	118	43	28	4.9	4.2	8.2
5	10	15	14	9	10	55	80	84	24	4.9	3.3	6.6
6	11	20	17	9	10	50	62	157	20	4.9	3.3	7.0
7	11	31	19	9	10	45	62	157	17	4.9	3.6	7.0
8	11	55	22	9	10	42	61	87	15	4.9	3.0	6.6
9	11	51	20	9	9	40	65	97	16	6.1	3.0	6.6
10	10	34	18	9	9	38	70	109	21	5.3	3.0	5.7
11	9.5	28	12	9	9	38	70	81	24	4.9	3.0	5.7
12	9.5	25	10	9	9	50	67	66	21	7.0	1.6	6.6
13	9.5	23	9	9	9	75	60	51	19	9.1	2.5	7.0
14	9.5	22	8	9	9	106	53	48	26	9.1	1.4	7.4
15	9.1	22	7	9	9	147	53	39	32	7.0	1.9	7.4
16	9.5	20	*7	9	*9	122	64	32	24	5.3	1.9	7.0
17	10	20	7	9	9	100	108	32	18	5.3	3.3	6.6
18	13	19	7	9.5	10	90	101	81	17	4.2	4.5	5.7
19	14	16	7	10	10	80	83	93	23	4.5	4.2	5.7
20	13	15	7.5	11	11	*85	70	101	24	3.0	4.2	5.7
21	12	16	7.5	11	12	90	61	94	18	4.5	3.3	4.9
22	12	19	7.5	11	14	104	60	85	14	4.5	1.9	4.2
23	13	25	7.5	11	17	137	62	87	12	5.3	3.0	3.9
24	12	26	7.5	*10	25	132	101	62	11	6.6	4.2	3.3
25	13	25	8	10	60	100	152	51	10	7.0	4.2	3.9
26	12	17	8	11	140	70	118	42	9.1	14	4.2	3.9
27	11	15	8	15	250	59	90	33	8.2	11	3.9	4.5
28	11	15	8	20	200	81	64	29	7.0	12	4.5	7.8
29	11	14	8	30	150	198	48	24	6.1	8.2	5.3	8.6
30	11	15	8	25	-	418	41	21	5.7	7.4	6.6	9.1
31	11	-	8	15	-	198	-	18	-	5.3	9.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	343.6	14	9.1	11.1	0.080	0.09
November	665	55	13	22.2	.161	.18
December	331.5	22	7	10.7	.078	.09
Calendar year 1943	45,325.6	2,420	6.8	124	.899	12.21
January	352.0	30	8.5	11.4	.083	.10
February	1,063	250	9	36.7	.266	.29
March	3,075	418	38	99.2	.719	.83
April	2,598	225	41	86.6	.628	.70
May	2,014	157	18	65.0	.471	.54
June	566.1	52	5.7	18.9	.137	.15
July	198.6	14	3.0	6.41	.046	.05
August	119.7	9.1	1.4	3.86	.028	.03
September	192.0	9.1	3.3	6.40	.046	.05
Water year 1943-44	11,518.5	418	1.4	31.5	.228	3.10

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 12 to Mar. 10, Mar. 18-21.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Chippewa River near Mount Pleasant, Mich.

Location.- Water-stage recorder, lat. 43°37'35", long. 84°42'30", on line between secs. 7 and 8, T. 14 N., R. 3 W., 4 miles northeast of Mount Pleasant.

Drainage area.- 416 square miles.

Records available.- October 1930 to July 1931, October 1932 to September 1944.

Average discharge.- 12 years (1932-44), 278 second-feet.

Extremes.- Maximum discharge during year, 340 second-feet Feb. 27 (gage height, 5.67 feet); minimum, 47 second-feet July 10; minimum gage height, 2.98 feet Dec. 14.
1930-31, 1932-44: Maximum discharge observed, 3,120 second-feet Feb. 6, 1938 (gage height, 12.02 feet), from rating curve extended above 1,900 second-feet; minimum observed, 19 second-feet Aug. 16, 1936.

Remarks.- Records good except those for periods of ice effect, which are fair. Diurnal fluctuation during low flow caused by power plant above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	182	214	219	150	214	388	398	348	259	148	115	69
2	179	216	205	150	228	342	512	342	320	121	124	103
3	202	214	219	150	243	305	482	361	277	124	121	103
4	211	208	211	150	222	280	404	382	262	112	103	151
5	164	219	219	150	208	259	373	373	247	124	115	157
6	193	251	222	150	205	268	342	420	217	69	103	157
7	176	320	251	150	205	250	348	404	220	97	118	154
8	188	410	272	150	179	235	382	398	208	94	103	151
9	190	485	263	150	190	235	404	420	208	94	103	139
10	161	410	254	150	208	265	435	420	223	75	106	142
11	156	374	208	150	188	259	420	376	238	86	103	160
12	173	353	200	150	188	271	420	351	229	139	94	136
13	179	323	200	150	190	330	392	348	226	154	103	166
14	196	296	200	150	190	311	376	323	271	190	83	169
15	208	272	*200	150	190	283	376	326	302	121	86	163
16	216	269	200	150	190	280	361	299	274	130	115	166
17	211	254	200	150	*190	305	404	308	232	136	106	157
18	208	251	180	150	190	314	404	450	226	103	a100	187
19	214	251	170	160	190	256	404	466	256	86	a100	127
20	216	248	150	170	190	*244	382	528	311	130	a100	148
21	211	248	160	170	200	348	376	466	358	86	a90	157
22	211	240	150	170	205	339	404	482	339	133	a83	169
23	208	234	140	170	220	323	395	497	274	86	a80	145
24	211	231	140	*170	230	420	435	544	223	157	a80	166
25	208	231	140	170	250	385	466	512	214	133	a90	166
26	208	228	140	180	371	364	482	466	187	121	a90	139
27	218	228	140	200	840	358	450	435	154	172	92	145
28	211	225	130	250	714	317	404	367	181	142	78	172
29	205	222	130	299	497	404	370	345	118	169	94	175
30	199	222	140	260	-	590	348	292	118	130	83	166
31	208	-	150	243	-	435	-	289	-	130	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,119	216	156	197	0.474	0.55
November	8,147	485	208	272	.654	.73
December	5,803	272	130	187	.450	.52
Calendar year 1943	145,386	1,990	121	398	.957	12.98
January	5,312	299	150	171	.411	.47
February	7,525	840	179	259	.623	.67
March	9,963	590	235	321	.772	.89
April	12,149	512	342	405	.974	1.09
May	12,338	544	289	398	.957	1.10
June	7,172	358	118	239	.575	.64
July	3,792	190	69	122	.293	.34
August	3,055	124	78	98.5	.237	.27
September	4,505	187	69	150	.361	.40
Water year 1943-44	85,880	840	69	235	.565	7.67

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Tittabawassee River at Midland and Pine River at Alma.
Note.- Stage-discharge relation affected by ice Dec. 12 to Jan. 28, Feb. 13-25.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Pine River at Alma, Mich.

Location.- Water-stage recorder, lat. 43°23', long. 84°39', in sec. 34, T. 12 N., R. 3 W., at Alma, 270 feet downstream from highway bridge. Datum of gage is 718.37 feet above mean sea level, datum of 1929.

Drainage area.- 288 square miles.

Records available.- October 1930 to September 1944.

Average discharge.- 14 years, 170 second-feet.

Extremes.- Maximum discharge during year, 960 second-feet Feb. 26 (gage height, 5.36 feet); minimum daily, 21 second-feet Dec. 14.
1930-44: Maximum discharge observed, 4,070 second-feet Feb. 6, 1938 (gage height, 10.43 feet), from rating curve extended above 2,000 second-feet; minimum daily, 2 second-feet (regulated) July 23, 1935.

Remarks.- Records good. Occasional regulation by dam above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

0.0	18	1.0	111
.1	23	2.0	238
.2	29	3.0	382
.4	46	4.0	565
.6	65	4.5	690

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.
1	78	125	111	75	159	678	495	186	151	68	62	63
2	78	141	128	76	116	590	458	218	218	72	55	64
3	91	148	130	77	119	371	398	218	251	75	54	58
4	79	136	116	76	133	300	374	218	152	67	53	79
5	67	189	118	69	129	206	330	218	259	61	47	78
6	73	112	117	73	135	186	279	265	39	58	46	110
7	87	165	135	88	145	180	251	300	120	55	45	87
8	86	225	145	84	128	140	175	272	134	61	50	83
9	74	244	156	74	86	122	238	286	130	73	46	80
10	85	272	155	65	113	130	251	314	139	63	41	72
11	70	237	184	75	98	140	307	322	157	54	44	62
12	75	225	79	80	94	202	344	279	180	62	41	63
13	76	212	68	85	87	238	330	218	148	63	41	68
14	105	192	21	66	116	244	300	218	150	86	38	89
15	101	180	42	64	111	218	330	199	173	87	38	115
16	129	163	89	75	105	221	367	218	199	68	37	94
17	137	150	84	76	99	337	390	192	180	66	46	89
18	135	141	78	69	97	300	374	225	166	63	61	85
19	123	184	82	65	116	258	374	286	169	63	78	77
20	128	196	83	74	98	199	360	406	186	54	68	73
21	127	146	91	79	100	212	322	414	180	55	57	73
22	118	87	91	82	168	218	293	440	148	54	52	68
23	113	100	77	87	208	238	286	422	124	53	50	69
24	135	135	65	80	307	232	322	367	107	54	50	72
25	133	140	74	82	337	272	367	352	125	52	55	69
26	131	125	62	97	484	279	374	322	110	60	56	59
27	124	124	73	131	666	300	352	300	89	75	56	61
28	118	134	77	165	422	272	314	296	84	80	56	79
29	121	124	69	173	602	483	307	218	79	76	59	99
30	112	127	65	192	-	535	226	206	72	66	58	115
31	121	-	74	192	-	485	-	173	-	61	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,230	137	67	104	0.361	0.42
November	4,879	272	87	163	.566	.63
December	2,939	184	21	94.8	.329	.38
Calendar year 1943	90,485	2,210	21	248	.861	11.69
January	2,846	192	64	91.8	.319	.37
February	5,578	666	86	192	.667	.72
March	8,786	678	122	283	.983	1.13
April	9,888	495	175	330	1.15	1.28
May	8,568	440	173	276	.958	1.10
June	4,419	259	39	147	.510	.57
July	2,005	87	52	64.7	.225	.26
August	1,606	78	37	51.8	.180	.21
September	2,353	115	58	78.4	.272	.30
Water year 1943-44	57,097	678	21	156	.542	7.37

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cass River at Frankenmuth, Mich.

Location.- Water-stage recorder, lat. 43°19'42", long. 83°45'28", on line between secs. 27 and 28, T. 11 N., R. 6 E., at highway bridge, 1 mile west of Frankenmuth and 2.6 miles upstream from Dead Creek.

Drainage area.- 848 square miles.

Records available.- February 1908 to March 1909, July 1935 to September 1936, June 1939 to September 1944.

Extremes.- Maximum discharge during year, 5,180 second-feet Feb. 28 (gage height, 15.34 feet); minimum, about 1 second-foot (regulated) Aug. 27 (gage height, 1.62 feet); minimum daily, about 1.5 second-feet (regulated) Aug. 6.
1908-9, 1935-36, 1939-44: Maximum discharge, 17,700 second-feet Mar. 18, 1942; maximum gage height, 20.91 feet Mar. 10, 1942 (backwater from ice); minimum daily discharge, that of Aug. 6, 1944.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair, and those below 50 second-feet, which are poor. Flow regulated by mill above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	102	162	90	220	a2,110	1,790	330	384	68	42	15
2	64	109	164	95	130	a1,400	a1,500	395	259	68	37	21
3	52	125	164	100	95	705	a1,300	395	500	66	27	22
4	73	114	161	100	80	680	a1,100	406	730	63	22	30
5	60	111	161	100	90	730	a900	450	890	60	3.8	37
6	64	144	174	100	105	446	a775	680	472	60	1.5	53
7	61	302	214	100	122	439	631	705	296	64	34	26
8	62	655	206	95	127	412	655	572	214	50	39	43
9	61	950	242	90	122	348	705	870	170	43	12	41
10	21	755	244	98	120	254	920	755	186	61	12	9.2
11	48	319	185	90	110	221	1,130	655	196	50	13	37
12	47	494	195	80	85	564	1,360	572	163	54	13	45
13	46	439	200	70	90	1,050	1,300	461	152	60	2.6	47
14	48	373	*220	60	120	1,330	1,130	176	148	58	23	11
15	40	248	130	35	*113	1,330	1,070	239	164	60	35	4.8
16	36	234	80	18	100	1,400	1,330	259	135	36	9.6	34
17	8.7	224	60	20	90	2,600	1,260	278	122	61	5.2	19
18	69	227	54	65	100	a2,200	1,070	417	116	49	25	57
19	132	233	50	68	95	a1,500	830	362	203	48	28	46
20	215	233	50	79	90	a1,000	584	450	189	48	5.6	46
21	190	229	50	*70	100	a780	572	384	146	25	29	46
22	181	337	50	64	140	a660	572	912	133	45	32	20
23	173	274	50	35	300	655	550	1,040	126	40	33	17
24	128	248	54	90	600	1,280	472	950	122	54	19	5.8
25	98	194	60	89	1,100	1,710	631	890	111	44	8.2	20
26	86	181	90	84	2,150	1,360	730	451	106	19	20	42
27	85	175	150	84	4,170	1,100	755	319	78	45	4.4	44
28	162	167	190	140	a4,730	1,160	680	340	77	34	16	48
29	148	165	250	150	a3,020	2,070	584	298	74	16	25	45
30	125	163	150	300	-	3,020	406	232	65	6.8	22	43
31	106	-	100	250	-	2,500	-	172	-	9.6	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,755.7	215	8.7	88.9	0.105	0.12
November	8,524	950	102	284	.335	.37
December	4,310	250	50	139	.164	.19
Calendar year 1943	260,958.7	12,100	8.7	715	.843	11.44
January	2,909	300	18	93.8	.111	.13
February	18,514	4,730	80	638	.752	.81
March	37,014	3,020	221	1,194	1.41	1.63
April	27,292	1,790	406	910	1.07	1.19
May	15,415	1,040	172	497	.586	.68
June	6,727	890	65	224	.264	.29
July	1,465.4	68	6.8	47.3	.056	.06
August	621.9	42	1.5	20.1	.024	.03
September	974.8	57	4.8	32.5	.038	.04
Water year 1943-44	126,522.8	4,730	1.5	346	.408	5.54

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Flint River near Flint and near Fosters.
Note.- Stage-discharge relation affected by ice Dec. 12 to Feb. 24.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Sebewaing River (State drain) near Sebewaing, Mich.

Location.- Water-stage recorder, lat. 43°43', long. 83°26', on line between secs. 16 and 21, T. 15 N., R. 9 E., at highway bridge on Rescue Road, 1½ miles upstream from East Fork and 1½ miles southeast of Sebewaing. Datum of gage is 590.0 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 62 square miles.

Records available.- January 1940 to September 1944.

Extremes.- Maximum discharge during year, 1,740 second-feet Feb. 26 (gage height, 8.12 feet); no flow for some periods.
1940-44: Maximum discharge, 2,660 second-feet Mar. 16, 1942; maximum gage height, 12.81 feet Mar. 9, 1942 (ice jam); no flow for long periods.

Remarks.- Records good above 10 second-feet and fair below except those for periods of ice effect and those below 1 second-foot, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	2.9	5.5	0.2	2	90	79	8.7	9.0	0.2		0
2	.3	4.7	5	.2	2	60	107	20	7.1	.1		0
3	.2	4.2	4.5	.1	2	40	61	17	19	0		0
4	.2	3.6	4	.2	2	25	52	12	8.5	0		0
5	.2	5.1	4.5	.2	2	15	49	14	5.3	0		0
6	.2	22	6.1	.2	2	5	46	56	4.2	0		0
7	.2	124	26	.2	2	5	51	34	3.2	0		0
8	.2	229	22	.2	2	5	56	20	2.1	0		0
9	.2	104	15	.2	2	5	73	46	1.7	0		0
10	.2	59	13	.2	2	5	178	41	2.6	.1		0
11	.2	43	10	.2	1	10	86	30	3.3	.4		0
12	.2	38	5	.2	.5	69	139	15	2.4	1.0		0
13	.2	32	2.5	.1	.5	143	85	11	1.8	.8		0
14	.3	20	*1.5	.1	.5	56	54	7.7	2.1	.7		0
15	.3	13	.8	0	.5	20	62	5.5	1.9	.5		0
16	.9	*10	.5	0	*.5	69	136	4.7	1.3	.2		0
17	2.6	9	.5	0	.5	324	69	4.4	.8	0		0
18	8.6	8	.5	0	.5	124	45	4.4	.9	0		0
19	11	10	.5	0	.5	64	34	3.6	8.0	0		0
20	8.3	12	.5	*0	1	25	25	3.8	5.7	0		0
21	5.8	11	.5	.1	1	*10	32	3.8	2.5	0		0
22	5.0	10	.5	.2	2	7	33	9.6	1.5	0		0
23	4.2	8.1	.2	.2	3	214	27	38	2.4	0		0
24	3.2	7.2	.1	.2	20	126	44	21	8.7	0		0
25	2.4	6	.1	.3	80	83	59	12	3.2	0		0
26	1.9	6.5	.1	1	400	58	56	7.4	3.1	0		0
27	1.7	7	.2	5	740	77	36	4.7	1.5	.6		0
28	1.7	7.5	.2	25	156	177	19	3.3	1.0	.3		.3
29	1.8	6	.2	10	128	394	12	2.6	.6	.1		.3
30	1.7	5.5	.2	3.5	-	218	9.8	1.9	.3	0		.2
31	1.8	-	.2	2	-	93	-	1.5	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	66.0	11	0.2	2.13	0.034	0.04
November	828.3	229	2.9	27.6	.445	.50
December	130.4	26	.1	4.21	.038	.08
Calendar year 1943	22,082.0	1,800	.1	60.5	.976	13.22
January	50.0	25	0	1.16	.026	.03
February	1,556.0	740	.5	53.7	.836	.93
March	2,616	394	.5	84.4	1.33	1.57
April	1,814.8	178	9.8	60.5	.976	1.09
May	464.6	56	1.5	15.0	.242	.28
June	115.7	19	.3	3.86	.062	.07
July	5.0	1.0	0	.161	.0026	.003
August	0	0	0	0	0	0
September	.8	.3	0	.027	.00044	.0005
Water year 1943-44	7,647.6	740	0	20.9	.337	4.59

Peak discharge.- Nov. 7 (12 p.m.) 345 sec.-ft.; Feb. 26 (8 p.m.) 1,740 sec.-ft.; Mar. 23 (4:30 p.m.) 515 sec.-ft.; Mar. 28 (11 p.m.) 660 sec.-ft.; Apr. 10 (7 a.m.) 235 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 14-19, Nov. 25 to Dec. 5, Dec. 12 to Feb. 26, Mar. 1-10, 15, 20-22.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

East Fork Sebewaing River (Columbia drain) near Sebewaing, Mich.

Location.- Water-stage recorder, lat. 43°44', long. 83°24', on line between secs. 10 and 11, T. 15 N., R. 9 E., at highway bridge on Gettel Road 2¼ miles upstream from mouth and 2½ miles southeast of Sebewaing. Datum of gage is 607.00 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 38 square miles.

Records available.- January 1940 to September 1944.

Extremes.- Maximum discharge during year, 730 second-feet Feb. 27; maximum gage height, 4.96 feet Mar. 12 (ice jam); no flow for some periods.
1940-44: Maximum discharge, 1,050 second-feet Mar. 17, 1942; maximum gage height, 9.70 feet Mar. 15, 1943 (ice jam); no flow for long periods.

Remarks.- Records good above 10 second-feet and fair below, except those for periods of ice effect and those below 1 second-foot, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	2.6	2.7	0.2	2	78	27	4.2	23	0.4		
2	.4	5.5	2.7	.2	2	28	40	8.4	9.5	.3		
3	.4	3.8	2.8	.2	2	10	20	9.0	3.9	.2		
4	.4	3.0	3.2	.2	2	6	17	6.0	3.3	.1		
5	.4	3.7	3.0	.2	2	4	14	5.7	1.8	.1		
6	.4	20	3.7	.2	2	3	14	28	1.3	.1		
7	.3	73	26	.2	2	3	15	14	1.1	0		
8	.3	150	13	.2	2	3	18	8.1	.9	0		
9	.3	145	10	.2	2	3	26	19	.8	0		
10	.4	26	8.4	.2	2	3	110	18	.8	0		
11	.3	15	8.4	.2	2	5	41	10	1.2	0		
12	.4	14	3.6	.2	1.5	200	65	7.0	1.4	0		
13	.4	12	2.5	.2	1	106	40	5.5	.9	0		
14	.4	7.7	*1	.2	1	21	20	4.4	1.0	.2		
15	.4	5.8	.8	.2	.9	10	23	3.3	.8	.5		
16	.8	5.3	.6	.2	*.9	51	70	2.6	.8	.3		
17	1.6	4.7	.5	.2	.8	239	62	2.3	.6	.2		
18	4.9	4.3	.4	.2	.8	62	16	2.0	.5	.1		
19	7.3	5.5	.4	.2	.8	19	12	1.8	1.0	.1		
20	5.3	7.3	.4	*.2	.8	11	9.7	1.7	1.2	.1		
21	3.2	6.1	.4	.2	.8	46.1	25	1.8	1.2	.1		
22	2.5	5.5	.3	.2	.9	7.7	28	2.2	.8	.1		
23	2.2	5.0	.2	.2	1	79	15	7.6	1.6	.1		
24	2.0	4.1	.2	.3	5.0	72	36	6.8	3.9	0		
25	1.9	3.4	.1	.4	30	31	69	4.4	2.9	0		
26	1.6	3.6	.2	.6	150	18	40	2.5	26	0		
27	1.5	4.7	.2	3.5	605	30	21	1.5	8.0	e.2		
28	1.4	5.0	.2	20	268	45	10	1.0	1.7	0		
29	1.5	3.6	.2	10	202	170	6.5	.8	.9	0		
30	1.6	3.0	.2	5	-	114	5.0	.7	.6	0		
31	1.6	-	.2	2	-	35	-	.5	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	46.5	7.3	0.3	1.50	0.039	0.04
November	558.2	150	2.6	18.6	.489	.55
December	96.5	26	.1	3.11	.082	.09
Calendar year 1943	10,377.0	690	0	28.4	.747	10.15
January	46.4	20	.2	1.50	.039	.04
February	1,293.2	605	.8	44.6	1.17	1.26
March	1,472.8	239	3	47.5	1.25	1.44
April	885.2	110	5.0	29.5	.776	.87
May	190.8	28	.5	6.15	.162	.19
June	103.4	26	.5	3.45	.091	.10
July	3.2	.5	0	.103	.0027	.003
August	0	0	0	0	0	0
September	0	0	0	0	0	0
Water year 1943-44	4,696.2	605	0	12.8	.337	4.58

Peak discharge.- Nov. 8 (2 a.m.) 198 sec.-ft.; Feb. 27 (2 a.m.) 730 sec.-ft.; Mar. 17 (3 a.m.) 422 sec.-ft.; Mar. 23 (8 p.m.) 216 sec.-ft.; Mar. 29 (1 p.m.) 293 sec.-ft.; Apr. 10 (8 a.m.) 153 sec.-ft.

* Winter discharge measurement made on this day.

e Discharge computed on basis of point of zero flow and records for Sebewaing River near Sebewaing.

Note.- Stage-discharge relation affected by ice Dec. 14 to Feb. 26, Mar. 5-12.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Black River near Port Huron, Mich.

Location.- Wire-weight gage, lat. 42°59', long. 82°32', in sec. 2, T. 6 N., R. 16 E., at highway bridge, 6 miles west of Port Huron and 10 miles upstream from mouth. Datum of gage is 574.42 feet above mean sea level, datum of 1929.

Drainage area.- 634 square miles.

Records available.- April to June 1931, October 1932 to December 1943 (discontinued).

Average discharge.- 11 years (1932-43), 290 second-feet.

Extremes.- Maximum discharge observed during period, 1,100 second-feet Nov. 9 (gage height, 8.52 feet); minimum daily, 17 second-feet Dec. 29, 31.
1931, 1932-43: Maximum discharge, 13,600 second-feet May 12, 1943 (gage height, 24.2 feet, from high-water mark); minimum observed, 4.0 second-feet June 22, 1931 (gage height, 4.48 feet).

Remarks.- Records fair, except those below 100 second-feet, which are poor. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	49	78									
2	37	56	68									
3	27	84	64									
4	37	216	61									
5	40	155	63									
6	31	131	67									
7	35	145	74	†29								
8	29	678	104									
9	32	1,060	131									
10	33	712	134									
11	24	440	118									
12	24	291	93									
13	24	225	63									
14	30	222	67									
15	33	194	49									
16	78	165	44									
17	40	140	34									
18	40	125	31									
19	56	108	26									
20	72	108	30									
21	78	116	31									
22	72	127	26									
23	67	129	28									
24	64	123	19									
25	78	110	34									
26	70	94	28									
27	60	91	21									
28	60	86	19									
29	55	81	17									
30	59	73	21									
31	54	-	17									

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,476	78	24	47.6	0.075	0.09
November	6,324	1,060	49	211	.333	.37
December	1,660	134	17	53.5	.084	.10
Calendar year 1943	244,795	10,500	17	671	1.06	14.34
January						
February						
March						
April						
May						
June						
July						
August						
September						
Water year						

† Result of discharge measurement.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Clinton River at Mount Clemens, Mich.

Location.- Water-stage recorder, lat. 42°35'45", long. 82°54'35", 20 feet downstream from Moravian Drive highway bridge, a quarter of a mile downstream from confluence of North and South Branches, and half a mile west of Mount Clemens. Auxiliary wire-weight gage 8,500 feet downstream on Gratiot Avenue Bridge. Datum of gages is 570.43 feet above mean sea level, datum of 1929.

Drainage area.- 733 square miles.

Records available.- May 1934 to September 1944.

Average discharge.- 10 years, 430 second-feet.

Extremes.- Maximum discharge during year, 3,130 second-feet Feb. 28 (gage height, 11.00 feet); minimum daily, 35 second-feet Sept. 4, 5, 8, 9.
1934-44: Maximum discharge, 14,600 second-feet May 12, 1943 (gage height, 21.89 feet, from high-water mark); minimum gage height, 2.90 feet Oct. 15, 1934.

Remarks.- Records fair except those for periods of ice effect or those below 150 second-feet, which are poor. Discharge computed by using fall as determined by twice-daily readings of auxiliary gage as a factor for part of year.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	201	224	100	473	605	875	494	335	173	100	e45
2	172	197	203	105	336	507	765	462	536	212	110	e43
3	158	230	182	110	306	470	690	700	934	124	75	e40
4	155	229	236	115	224	480	630	543	950	214	72	e35
5	138	185	201	120	197	400	592	617	677	242	86	e35
6	168	232	167	125	196	300	571	961	451	170	80	e37
7	134	487	347	125	196	380	571	785	342	170	104	e40
8	133	675	200	130	235	450	558	578	315	170	64	e35
9	215	525	180	130	225	560	966	814	e300	338	e150	e35
10	163	386	160	130	220	690	1,750	848	334	290	e150	53
11	149	319	145	130	220	566	2,110	651	405	257	e130	38
12	129	290	145	130	220	398	2,290	538	313	225	e120	38
13	158	340	130	130	220	440	2,350	448	246	234	e110	52
14	141	309	120	130	*220	462	1,340	429	258	164	e110	51
15	153	294	120	125	220	e550	1,140	400	241	163	80	62
16	e200	278	110	120	220	e2,500	1,420	378	208	214	70	37
17	e210	274	110	115	220	e1,500	1,340	451	e220	115	93	60
18	e200	310	110	*115	215	e1,000	980	584	243	159	78	e45
19	199	288	115	110	210	e750	840	447	810	153	50	e42
20	193	277	120	110	215	e650	744	613	720	103	47	39
21	198	275	120	110	220	568	742	598	372	144	45	65
22	171	252	120	105	250	484	769	1,180	285	100	e45	51
23	192	270	110	105	1,130	555	878	1,140	330	140	62	67
24	192	259	90	105	1,800	910	1,060	860	337	153	e60	48
25	184	249	80	105	1,850	840	1,000	596	354	119	63	39
26	172	248	80	110	1,700	750	875	482	236	97	79	39
27	162	258	80	160	2,770	910	774	768	218	92	76	81
28	170	242	90	350	2,220	*1,140	662	562	176	91	e67	121
29	172	208	95	605	875	1,140	580	402	e170	122	57	112
30	170	180	95	408	-	1,850	542	332	172	102	e50	92
31	197	-	95	340	-	1,420	-	320	-	81	e45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,308	215	129	171	0.233	0.27
November	8,817	675	180	294	.401	.45
December	4,380	347	80	141	.192	.22
Calendar year 1943	293,237	13,200	80	803	1.10	14.89
January	4,908	605	100	158	.216	.25
February	17,603	2,770	196	607	.828	.89
March	24,227	2,500	300	782	1.07	1.23
April	30,704	2,350	542	1,032	1.40	1.56
May	18,987	1,180	320	612	.835	.96
June	11,488	950	170	383	.523	.58
July	5,131	338	81	166	.226	.26
August	2,530	150	45	81.6	.111	.13
September	1,577	121	35	52.6	.072	.08
Water year 1943-44	135,660	2,770	35	371	.506	6.88

* Winter discharge measurement made on this day.
e Lower gage reading not representative of mean for day; discharge computed on basis of weather records and records for Rogue River at Detroit.
Note.- Stage-discharge relation affected by ice Dec. 8 to Jan. 28, Feb. 8-22, Mar. 3-9.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

River Rouge at Detroit, Mich.

Location.- Wire-weight gage, lat. 42°21'40", long. 83°15'15", on line between secs. 33 and 34, T. 1 S., R. 10 E., at Detroit and 3 miles upstream from Middle Rouge River. Datum of gage is 579.90 feet above mean sea level.

Drainage area.- 194 square miles.

Records available.- November 1930 to September 1944.

Average discharge.- 14 years, 90.5 second-feet.

Extremes.- Maximum discharge observed during year, 840 second-feet Mar. 16 (gage height, 10.42 feet); minimum observed, 6.0 second-feet Aug. 14 (gage height, 4.15 feet).
1930-44: Maximum discharge observed, 3,630 second-feet Feb. 20, 1939 (gage height, 18.87 feet), from rating curve extended above 1,300 second-feet; minimum observed, 2.7 second-feet Aug. 11, 1934 (gage height, 3.50 feet).

Remarks.- Records fair except those for period of ice effect, which are poor. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	35	51	20	70	128	197	109	a65	a22	14	a9.2
2	20	47	51	20	35	123	a157	160	69	a22	14	9.2
3	19	62	51	20	36	97	140	146	49	21	14	8.4
4	17	53	54	20	40	110	126	a132	47	a20	12	7.6
5	17	51	51	20	40	93	117	128	45	17	12	6.6
6	20	55	50	20	40	88	111	215	43	17	a12	6.4
7	19	101	50	20	40	204	116	155	42	19	11	7.4
8	19	180	50	20	35	150	271	128	43	18	8.4	8.4
9	18	124	40	18	30	118	a594	226	38	a24	7.8	7.2
10	18	89	35	18	30	92	a481	213	a38	26	7.4	a6.4
11	18	74	*30	18	30	84	417	150	a40	20	6.8	6.8
12	19	66	30	18	*30	a130	621	128	43	23	6.2	8.2
13	20	61	25	18	30	170	365	111	42	19	a6.2	11
14	28	55	25	18	33	101	244	a92	43	18	6.0	11
15	31	56	25	18	35	126	219	a79	42	17	6.2	9.6
16	49	61	22	18	35	721	356	78	38	16	7.8	9.0
17	47	57	22	*18	35	420	263	97	38	14	15	a7.8
18	42	55	23	18	33	226	196	114	a55	14	16	7.6
19	43	56	24	18	33	122	170	100	60	14	16	8.2
20	40	57	25	18	33	118	141	114	56	16	a14	8.6
21	38	a55	25	18	35	76	146	a114	41	15	11	8.4
22	36	54	25	18	40	95	160	123	32	16	9.2	9.0
23	34	55	20	18	100	125	244	123	48	a13	8.6	a9.0
24	a32	a50	17	19	250	a190	297	102	a48	13	8.6	8.4
25	34	44	17	19	404	204	270	85	a38	12	9.0	8.0
26	36	50	17	20	576	170	213	87	31	16	a9.2	8.0
27	32	52	17	25	a600	241	165	205	31	30	a9.2	7.8
28	34	53	20	80	*270	273	132	a202	27	22	13	14
29	37	51	20	60	150	241	114	71	25	13	14	29
30	32	51	20	50	-	433	a99	a56	23	a13	11	16
31	34	-	20	55	-	297	-	53	-	a14	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	904	49	17	29.2	0.151	0.17
November	1,910	180	35	63.7	.328	.37
December	952	54	17	30.7	.158	.18
Calendar year 1943	62,459	2,580	17	171	.881	11.97
January	758	80	18	24.5	.126	.15
February	3,150	600	30	109	.562	.61
March	5,766	721	76	186	.959	1.11
April	7,142	621	99	238	1.23	1.37
May	3,896	226	53	126	.549	.75
June	1,280	69	23	42.7	.220	.24
July	554	30	12	17.9	.092	.11
August	325.6	16	6.0	10.5	.054	.06
September	282.2	29	6.4	9.41	.049	.05
Water year 1943-44	26,919.8	721	6.0	73.6	.379	5.17

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Raisin River at Monroe and Grand River at Jackson.
Note.- Stage-discharge relation affected by ice Dec. 6 to Feb. 24.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Raisin River at Monroe, Mich.

Location.- Water-stage recorder and concrete dam, lat. 41°54'50", long. 83°23'15", at municipal water-supply plant in Monroe, 4 miles upstream from mouth. Datum of gage is 570.00 feet above mean sea level (city of Monroe bench mark).

Drainage area.- 1,020 square miles.

Records available.- September 1937 to September 1944.

Extremes.- Maximum discharge during year, 5,100 second-feet June 24 (gage height, 8.42 feet); minimum, 28 second-feet (regulated) Aug. 4 (gage height, 5.59 feet).
1937-44: Maximum discharge, 10,900 second-feet May 20, 1943 (gage height, 9.80 feet); minimum, about 2 second-feet Sept. 19, 20, 1941; minimum gage height observed, 3.22 feet Aug. 26, 1941 (gates in dam open).

Remarks.- Records good except those below 50 second-feet and those for periods of ice effect, which are fair. Slight regulation from power plants upstream.

Cooperation.- Water-stage recorder inspected by employees of city of Monroe.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

5.6	32	6.0	328	7.4	2,610
5.7	87	6.2	550	8.0	4,000
5.8	156	6.5	970	8.3	4,810
5.9	237	6.9	1,630		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	237	246	282	164	615	2,400	1,700	940	628	708	149	135
2	196	273	282	130	446	1,700	1,450	925	910	538	148	108
3	188	246	292	159	424	1,180	1,200	910	970	435	108	92
4	200	264	292	164	360	1,030	1,060	850	940	403	118	115
5	188	282	264	164	349	b820	925	865	835	392	128	108
6	172	310	285	172	321	b840	820	1,020	694	349	115	108
7	130	328	282	172	349	b940	736	1,180	576	292	126	81
8	188	531	310	188	280	b860	722	1,230	504	292	128	69
9	196	750	301	172	277	b880	778	1,230	446	255	115	101
10	135	820	319	138	177	b850	1,540	2,060	403	246	101	115
11	186	764	282	149	156	750	2,440	2,080	339	229	108	80
12	172	654	292	128	178	1,180	4,130	2,020	360	264	101	101
13	188	516	216	149	213	1,610	4,530	1,630	319	255	94	115
14	213	458	208	142	292	1,650	4,400	1,170	319	273	106	87
15	188	435	160	142	301	2,100	4,000	940	319	229	94	94
16	205	470	212	129	273	4,000	4,260	1,050	349	196	108	121
17	196	414	221	119	264	3,880	3,510	1,790	360	196	108	108
18	198	446	237	135	282	3,750	2,930	2,200	282	188	149	106
19	255	435	221	135	255	3,510	2,670	1,720	264	135	122	122
20	273	414	189	122	255	2,930	2,040	1,350	246	156	142	108
21	310	392	221	156	237	1,920	1,560	1,100	229	180	180	75
22	301	382	213	149	255	1,350	1,310	1,200	287	188	135	94
23	282	371	164	142	b670	1,230	1,890	1,330	1,840	164	108	101
24	264	371	196	147	b1,500	1,380	2,630	1,180	4,810	213	101	87
25	273	360	172	164	b2,000	1,380	2,760	1,000	3,510	188	115	79
26	264	339	130	205	b2,600	1,360	2,760	865	2,930	180	108	76
27	229	328	155	201	4,260	1,680	2,400	925	2,650	188	122	85
28	229	301	153	368	3,390	2,000	1,810	1,250	2,100	172	97	106
29	255	319	133	492	2,930	1,980	1,350	1,080	1,350	172	122	138
30	221	310	164	509	-	2,140	1,080	1,020	925	142	115	115
31	229	-	164	654	-	1,870	-	865	-	149	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,761	310	130	218	0.214	0.25
November	12,529	764	246	418	.410	.46
December	7,012	319	133	226	.222	.26
Calendar year 1943	454,807	10,600	130	1,246	1.22	16.59
January	6,160	654	119	199	.195	.22
February	23,909	4,260	156	824	.808	.87
March	55,150	4,000	750	1,779	1.74	2.01
April	65,391	4,530	722	2,180	2.14	2.39
May	38,975	2,200	850	1,257	1.23	1.42
June	30,694	4,810	229	1,023	1.00	1.12
July	7,967	708	135	257	.252	.29
August	3,665	180	94	118	.116	.13
September	3,030	138	69	101	.099	.11
Water year 1943-44	261,243	4,810	69	714	.700	9.53

b Stage-discharge relation affected by ice.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

St. Joseph River near Fort Wayne, Ind.

Location.- Water-stage recorder, lat. 41°10', long. 85°04', in SW¼NW¼SE¼ sec. 4, T. 31 N., R. 13 E., at Ely Bridge on Mayhew Road, 3½ miles downstream from Cedar Creek and 8 miles northeast of Fort Wayne. Since Sept. 15, 1944, auxiliary gage at St. Joe Dam, 5½ miles downstream.

Drainage area.- 1,060 square miles.

Records available.- August 1941 to September 1944.

Extremes.- Maximum discharge during year, 10,100 second-feet Apr. 12 (gage height, 16.18 feet); minimum daily, 62 second-feet Sept. 26; minimum gage height, 1.60 feet Sept. 20. 1941-44: Maximum discharge, 10,600 second-feet May 18, 1943 (gage height, 16.70 feet); minimum daily, 27 second-feet Aug. 21, 1941; minimum gage height, 1.40 feet Sept. 20, 29, 1941.

Remarks.- Records good except those below 200 second-feet and those for periods of ice effect, which are fair, and those for Aug. 6-16, which are poor. Discharge below 330 second-feet computed by using fall as determined from record of automatic turbine operation as a factor. Some regulation at low flow by pumping plant 5½ miles below station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.
1	154	143	*267	130	296	2,270	1,850	1,240	1,240	228	120	103
2	134	137	256	130	254	1,730	1,570	1,190	980	213	85	91
3	124	162	244	130	231	1,140	1,370	1,120	960	198	84	88
4	110	143	238	135	238	1,190	1,140	1,190	842	190	87	84
5	106	131	246	140	213	1,190	1,000	1,280	704	188	122	86
6	102	145	231	135	218	1,100	880	1,520	606	173	e315	84
7	97	370	244	130	207	1,470	790	1,520	515	168	e240	83
8	97	900	244	120	213	1,200	755	1,420	466	164	e120	80
9	100	1,140	261	110	200	900	825	3,570	412	158	e165	83
10	88	1,120	263	125	180	800	3,890	4,850	398	154	e195	84
11	86	900	256	115	150	800	7,330	3,570	370	148	e205	86
12	88	720	246	110	130	842	9,730	2,760	357	152	e215	84
13	86	638	220	110	160	1,240	9,630	2,030	665	139	e215	92
14	98	575	190	110	180	1,900	7,930	1,470	1,290	134	e210	96
15	106	560	180	115	200	4,930	6,790	1,140	638	165	e170	91
16	102	545	170	120	210	5,890	6,880	960	485	176	e115	78
17	129	530	170	120	210	5,890	5,710	920	412	87	138	80
18	145	530	170	120	200	5,170	4,370	880	426	207	141	88
19	152	500	175	120	180	4,890	3,650	808	384	103	98	103
20	179	441	180	120	180	4,210	3,040	1,190	357	127	103	78
21	154	412	180	130	210	3,330	2,340	1,280	324	122	95	70
22	165	398	170	130	620	2,340	2,340	1,020	484	117	87	69
23	131	357	155	130	2,300	1,730	4,610	1,040	1,140	174	89	64
24	135	331	155	130	1,910	1,470	5,890	1,240	790	117	87	66
25	148	308	160	140	1,790	1,320	5,090	1,370	545	165	145	63
26	111	294	165	160	2,690	1,240	4,130	1,570	441	218	120	62
27	111	284	170	180	3,180	2,090	3,570	1,670	357	174	122	69
28	113	289	170	210	2,900	2,550	2,900	2,030	314	174	103	68
29	119	263	150	210	*2,690	2,270	2,090	2,620	287	127	159	103
30	117	279	130	211	-	2,340	1,520	2,550	246	103	263	184
31	160	-	*130	*261	-	*2,090	-	1,850	-	95	204	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,747	179	86	121	0.114	0.13
November	13,545	1,140	131	452	.426	.48
December	6,186	267	130	200	.189	.22
Calendar year 1943	494,641	10,400	86	1,355	1.28	17.36
January	4,337	261	110	140	.132	.15
February	22,340	3,180	130	770	.726	.78
March	71,322	5,890	800	2,301	2.17	2.50
April	113,610	9,730	755	3,787	3.57	3.99
May	52,868	4,850	808	1,705	1.61	1.85
June	17,435	1,290	246	581	.548	.61
July	4,858	228	87	157	.148	.17
August	4,617	315	84	149	.141	.16
September	2,560	184	62	85.3	.080	.09
Water year 1943-44	317,425	9,730	62	867	.818	11.13

* Winter discharge measurement made on this day.
e Fall indeterminate; discharge computed by assuming rise at St. Joe Dam proportional to rise at upper gage.
Note.- Stage-discharge relation affected by ice Dec. 13 to Jan. 29, Feb. 10-23, Mar. 8-11.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Maumee River at Antwerp, Ohio

Location.- Water-stage recorder, lat. 41°11'56", long. 84°44'40", in sec. 22, T. 3 N., R. 1 E., just downstream from highway bridge, 1 mile north of Antwerp, 7 miles downstream from Indiana State line, and 10 miles upstream from Marie DeLarme Creek. Datum of gage is 695.49 feet above mean sea level, adjustment of 1912.

Drainage area.- 2,049 square miles.

Records available.- September 1921 to December 1935, April 1939 to September 1944.

Average discharge.- 19 years, 1,544 second-feet.

Extremes.- Maximum discharge during year, 20,700 second-feet Apr. 13 (gage height, 18.83 feet); minimum, 60 second-feet Sept. 26 (gage height, 0.52 foot).
1921-35, 1939-44: Maximum discharge, 26,200 second-feet May 20, 1943 (gage height, 20.29 feet); minimum, 24 second-feet Oct. 17, 1930, June 21, 22, 1933 (gage height, 0.32 foot).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Low flow slightly regulated by power plant at Fort Wayne, Ind.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-29)

0.6	72	2.0	446	5.0	2,100	14.0	11,000
.8	106	2.5	645	6.0	2,850	15.0	12,400
1.0	148	3.0	879	8.0	4,450	17.0	16,100
1.3	223	3.5	1,140	10.0	6,400	18.0	18,400
1.6	312	4.0	1,450	12.0	8,600	18.8	20,600

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	296	213	316	180	312	3,890	3,330	2,380	2,450	344	128	130
2	260	284	269	190	328	3,330	3,010	1,970	1,780	234	133	260
3	234	306	334	180	318	2,530	2,610	1,840	1,550	245	122	135
4	254	240	306	180	275	2,240	2,170	1,840	1,970	251	139	110
5	223	303	312	180	322	3,090	1,840	1,840	2,040	231	126	106
6	237	422	303	175	306	3,570	1,610	2,040	1,680	223	128	104
7	220	658	370	175	243	4,630	1,380	2,170	1,450	223	146	95
8	215	1,520	300	170	318	4,810	a1,290	2,100	1,420	210	436	104
9	215	1,970	328	170	281	4,210	a1,200	3,690	1,260	207	182	93
10	220	1,740	325	175	240	3,730	a5,000	8,960	1,010	202	114	93
11	200	1,550	328	175	200	3,490	a14,000	8,270	782	202	126	85
12	146	1,260	322	*175	180	3,650	18,400	5,180	645	205	116	92
13	124	1,030	300	180	170	3,650	20,600	3,810	602	202	108	114
14	184	879	300	180	210	3,490	20,000	2,930	1,330	202	101	153
15	223	758	250	200	250	5,780	18,400	2,170	1,520	202	93	118
16	210	854	250	180	250	7,720	17,700	1,780	954	200	93	a110
17	248	560	230	170	250	8,720	15,700	1,550	712	182	90	a100
18	237	667	230	170	240	8,720	12,800	1,380	602	172	80	a92
19	251	645	250	170	220	7,280	8,380	1,320	602	167	192	a90
20	306	602	240	160	220	6,080	5,380	1,480	624	167	148	a110
21	436	560	240	160	250	5,180	4,290	2,170	520	167	218	150
22	460	520	220	160	330	4,370	3,890	2,240	520	160	234	80
23	380	501	210	180	2,100	3,410	7,280	1,740	455	139	a240	69
24	334	482	200	190	3,890	2,850	11,200	1,710	1,230	114	a200	63
25	281	478	210	200	3,490	3,010	11,300	1,840	929	110	a150	62
26	257	422	200	210	4,640	2,690	9,200	2,380	645	108	a130	60
27	275	315	200	220	5,880	3,250	6,510	2,310	560	114	a110	66
28	248	364	200	250	5,380	4,290	5,180	2,930	453	148	a160	72
29	243	351	190	303	*4,370	4,130	4,130	4,450	411	155	a130	88
30	243	464	180	263	-	3,970	3,090	4,290	347	153	a110	106
31	237	-	180	234	-	3,730	-	3,410	-	144	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,897	460	124	255	0.124	0.14
November	20,918	1,970	213	697	.340	.38
December	8,093	370	180	261	.127	.15
Calendar year 1943	931,776	25,800	124	2,553	1.25	16.90
January	5,905	303	160	190	.093	.11
February	35,463	5,880	170	1,223	.597	.64
March	135,490	8,720	2,240	4,371	2.13	2.46
April	240,870	20,600	1,200	8,029	3.92	4.37
May	88,170	8,960	1,320	2,844	1.39	1.60
June	31,053	2,450	347	1,035	.505	.56
July	5,783	344	108	187	.091	.10
August	4,584	436	80	148	.072	.08
September	3,110	260	60	104	.051	.06
Water year 1943-44	587,336	20,600	60	1,605	.783	10.65

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Maumee River near Defiance, Ohio, and St. Joseph and St. Marys Rivers near Fort Wayne, Ind.
Note.- Stage-discharge relation affected by ice Dec. 13 to Jan. 28, Feb. 11-23.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Maumee River near Defiance, Ohio

Location.- Water-stage recorder and concrete dam, lat. 41°17'30", long. 84°16'50", in NW¼ sec. 22, T. 4 N., R. 5 E., 40 feet upstream from Independence Dam, 275 feet downstream from point of diversion to Miami & Erie Canal, 4 miles downstream from Auglaize River, and 4½ miles east of Defiance. Datum of gage is 659.12 feet above mean sea level.
Drainage area.- 5,530 square miles.
Records available.- October 1924 to December 1935, March 1939 to September 1944.
Average discharge.- 16 years, 3,560 second-feet (not including flow in Miami & Erie Canal).
Extremes.- Maximum discharge during year, 65,900 second-feet Apr. 13 (gage height, 11.05 feet from floodmark); minimum, 90 second-feet Sept. 25, 26 (gage height, 1.45 feet).
1924-35, 1939-44: Maximum discharge, 80,800 second-feet May 19, 1943 (gage height, 13.1 feet); minimum, 18 second-feet Aug. 2, 1934 (gage height, 1.24 feet).
Remarks.- Records good except those for period of no gage-height record, which are fair. Flow affected by regulation of Auglaize River at hydroelectric plant of Toledo Edison Co., 3 miles south of Defiance. Diversion into Miami & Erie Canal above station not included in records; for miscellaneous measurements of this canal, see pp. 221, 222.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Feb. 22)

1.45	90	2.0	1,060	3.5	6,850	7.0	34,100
1.5	140	2.2	1,560	4.0	9,720	8.0	43,200
1.6	270	2.5	2,460	4.5	12,800	9.0	50,900
1.7	430	2.8	3,540	5.0	16,200	10.0	58,500
1.8	625	3.0	4,360	6.0	24,600	11.0	65,900

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	414	625	286	398	7,410	6,850	4,630	3,820	625	218	179
2	450	318	566	270	450	5,840	6,100	2,800	3,900	528	205	166
3	382	382	450	270	586	4,630	4,860	2,560	4,950	414	192	302
4	318	862	566	270	547	5,150	4,230	2,800	5,490	366	179	244
5	366	625	469	286	508	5,890	3,660	3,510	5,950	366	205	166
6	350	566	606	302	450	7,980	3,050	3,270	4,680	350	179	316
7	302	840	528	302	566	13,600	2,660	3,620	3,120	334	166	192
8	318	2,110	528	382	430	19,400	3,060	4,280	2,490	318	179	140
9	286	3,430	566	302	414	16,800	1,900	8,350	2,140	302	398	140
10	270	3,460	732	286	450	10,600	13,900	16,600	1,670	302	350	166
11	286	2,630	508	*270	257	8,260	37,100	20,200	1,560	302	270	153
12	286	1,960	469	257	205	7,980	a60,000	14,400	1,180	350	166	179
13	270	1,480	398	257	334	8,260	a64,000	9,720	1,130	302	318	179
14	231	1,460	*257	257	382	9,830	a50,000	6,150	3,310	286	302	231
15	179	1,330	318	467	366	14,400	43,200	4,110	3,050	334	218	231
16	318	1,110	528	416	302	18,600	34,100	3,310	2,300	286	231	218
17	302	1,350	318	366	382	21,500	30,100	2,910	1,920	270	192	192
18	528	1,060	334	257	398	21,100	25,500	2,530	1,020	257	166	166
19	625	1,080	334	231	302	17,800	19,000	2,560	818	244	286	153
20	586	1,020	398	231	398	13,100	12,400	3,050	754	244	286	130
21	547	972	382	244	450	10,900	8,550	2,870	818	231	270	140
22	586	862	334	244	1,040	7,980	7,980	3,980	1,490	231	270	205
23	646	818	286	286	3,540	7,410	12,600	3,900	2,020	231	318	153
24	469	776	302	318	b8,550	7,700	22,800	3,310	1,300	231	302	120
25	382	754	286	286	9,130	9,130	26,400	3,200	1,620	192	244	110
26	366	646	318	302	10,000	8,550	21,100	3,310	1,350	205	205	100
27	528	732	334	350	13,100	8,260	14,600	4,320	1,160	192	192	153
28	414	508	286	382	*12,100	*10,000	11,200	5,100	950	179	244	153
29	488	528	270	469	9,720	10,300	10,600	6,000	776	179	179	130
30	776	586	302	398	-	9,720	5,790	6,260	625	192	179	166
31	366	-	286	528	-	9,130	-	5,150	-	205	231	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	12,635	776	179	408		
November	34,669	3,460	318	1,156		
December	12,904	732	257	416		
Calendar year 1943	2,174,418	77,300	179	5,957		
January	9,772	528	231	315		
February	75,755	13,100	205	2,612		
March	337,210	21,500	4,630	10,880		
April	567,490	64,000	1,900	18,920		
May	168,760	20,200	2,530	5,444		
June	67,361	5,950	625	2,245		
July	9,048	625	179	292		
August	7,340	398	166	237		
September	5,273	316	100	176		
Water year 1943-44	1,308,217	64,000	100	3,574		

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of high-water mark in gage well and records for station at Waterville.
b Stage-discharge relation affected by ice.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Maumee River at Waterville, Ohio

Location.- Water-stage recorder, lat. 41°30'00", long. 83°42'46", at highway bridge in Waterville, Lucas County, 3 miles downstream from Tontogany Creek. Datum of gage is 596.33 feet above mean sea level, adjustment of 1912.
Drainage area.- 6,314 square miles.
Records available.- November 1898 to December 1901, August 1921 to December 1935, March 1939 to September 1944.
Average discharge.- 19 years (1921-35, 1939-44), 4,251 second-feet (does not include flow in Miami & Erie Canal; canal was abandoned in 1929 and was filled in prior to March 1939).
Extremes.- Maximum discharge during year, 71,000 second-feet Apr. 12 (gage height, 13.2 feet); minimum, 107 second-feet July 31 (gage height, 1.47 feet).
1921-35, 1939-44: Maximum discharge, 78,000 second-feet May 20, 1943 (gage height, 13.9 feet); minimum, 32 second-feet Sept. 29, 1941.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Low flow slightly regulated by power plants above station.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 12 to Dec. 11)

1.5	118	2.4	1,240	4.6	7,650	9.0	34,300
1.6	154	2.7	1,810	5.0	9,350	10.0	42,200
1.7	205	3.0	2,500	5.5	11,700	11.0	50,700
1.8	285	3.5	3,800	6.0	14,300	12.0	59,500
1.9	410	3.8	4,670	7.0	20,200	13.0	69,000
2.2	890	4.2	6,100	8.0	26,900		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	538	714	602	350	458	8,480	8,480	5,720	4,520	570	159	253
2	458	506	730	330	372	6,860	7,250	3,800	4,080	570	213	200
3	442	570	618	320	442	5,540	5,910	2,900	5,000	474	205	169
4	398	426	618	320	570	5,350	5,000	3,050	6,100	385	213	261
5	410	1,010	538	320	570	6,290	4,370	3,160	6,100	360	221	245
6	372	666	602	350	458	8,060	3,750	4,220	5,910	322	190	180
7	372	714	762	350	426	15,700	2,950	3,800	3,660	285	150	322
8	322	1,710	634	450	474	22,800	3,580	4,220	2,900	298	169	200
9	335	3,340	634	350	410	20,000	2,800	7,560	2,430	269	185	143
10	245	3,750	842	330	426	15,000	16,200	20,800	2,050	285	410	132
11	285	3,290	698	330	350	11,000	45,000	23,400	1,690	285	426	143
12	322	2,750	600	330	250	9,810	69,000	19,000	1,400	335	310	164
13	298	2,120	500	*320	350	10,300	70,000	18,400	1,240	253	190	200
14	442	1,550	400	320	450	11,200	64,200	7,860	2,480	237	298	185
15	221	1,630	320	560	430	20,200	50,700	5,350	3,420	245	348	200
16	372	1,480	400	500	350	23,400	39,800	4,220	3,030	261	310	190
17	554	1,370	600	450	400	26,200	33,600	3,560	1,940	221	277	169
18	372	1,440	380	350	450	25,500	28,300	3,230	1,960	229	205	174
19	634	1,260	400	300	350	21,400	22,100	3,420	1,130	237	180	190
20	746	1,170	400	280	400	17,200	15,500	3,750	810	261	245	185
21	730	1,200	500	280	500	12,700	10,500	3,940	810	221	285	205
22	842	1,040	450	300	1,000	10,500	8,270	3,940	958	185	310	190
23	666	975	400	310	3,410	8,700	13,200	4,220	2,200	190	298	143
24	730	924	350	330	*8,460	8,910	23,400	4,840	1,380	205	322	143
25	506	924	370	360	11,500	10,000	29,000	4,370	1,420	185	277	147
26	506	826	350	340	12,200	10,700	24,800	4,080	1,400	174	229	150
27	586	826	400	372	16,000	10,300	19,000	4,220	1,240	385	169	147
28	698	698	370	360	15,500	11,200	13,200	5,720	1,060	229	322	164
29	618	586	350	348	12,400	12,200	9,290	5,910	810	205	269	150
30	698	746	350	442	-	11,500	6,860	6,670	618	164	180	143
31	602	-	370	458	-	10,500	-	5,720	-	114	190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	15,320	842	221	494	0.078	0.09
November	40,211	3,750	426	1,340	.212	.24
December	15,538	842	320	501	.079	.09
Calendar year 1943	2,439,099	77,000	221	6,682	1.06	14.36
January	11,110	560	280	358	.057	.07
February	89,356	16,000	250	3,081	.488	.53
March	407,500	26,200	5,350	13,150	2.08	2.40
April	656,010	70,000	2,800	21,870	3.46	3.86
May	205,050	23,400	2,900	6,615	1.05	1.21
June	73,746	6,100	618	2,458	.389	.43
July	8,639	570	114	279	.044	.05
August	7,755	426	150	250	.040	.05
September	5,487	322	132	183	.029	.03
Water year 1943-44	1,535,722	70,000	114	4,196	.665	9.05

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 12 to Jan. 18 (no gage-height record Jan. 4-8), Feb. 11, 12. No gage-height record Jan. 19-26, Feb. 13-22, Mar. 9-11; discharge computed on basis of weather records and records for station near Defiance.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cedar Creek at Auburn, Ind.

Location.- Staff gage, lat. 41°21', long. 85°03', in SW¼ sec. 29, T. 34 N., R. 13 E., at Ninth Street Bridge in Auburn, 2 miles upstream from Peckhart ditch.
Drainage area.- 93 square miles.
Records available.- July 1943 to September 1944.
Extremes.- 1943: Maximum discharge during period July to September, 99 second-feet Sept. 6 (gage height, 2.15 feet, from graph based on gage readings); minimum, 5.0 second-feet Sept. 26; minimum gage height, 1.04 feet at times during August and September, from graph based on gage readings.

1943-44: Maximum discharge during water year, 1,010 second-feet Apr. 12 (gage height, 9.30 feet, from graph based on gage readings); minimum, 2.4 second-feet Aug. 19-21, Sept. 17-20, 24; minimum gage height, 0.94 second-foot Aug. 19, 20, from graph based on gage readings.
Remarks.- Records good except those below 10 second-feet and those for periods of ice effect or no gage-height record, which are fair. Gage read once daily.

Discharge, in second-feet, 1943-44

1943

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	-	26	9.0	11	-	17	16	21	-	10	7.5
2	-	28	8.5	12	-	16	16	22	-	10	7.0
3	-	36	8.5	13	-	18	14	23	-	10	6.2
4	-	36	10	14	-	18	13	24	-	10	5.8
5	-	31	19	15	-	17	13	25	-	15	5.4
6	-	26	91	16	-	17	13	26	-	17	5.0
7	-	24	79	17	-	15	11	27	-	16	5.4
8	-	22	44	18	-	12	10	28	-	16	5.8
9	-	19	31	19	-	12	9.0	29	-	13	6.6
10	-	17	20	20	-	12	8.0	30	29	10	7.0
								31	26	10	-

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	9.5	*17	10	12	125	119	110	70	17	6.9	4.4
2	5.8	10	17	10	12	123	107	135	130	16	6.4	3.6
3	5.8	12	16	10	12	117	96	125	80	14	6.4	3.2
4	7.0	13	16	10	12	105	90	119	59	13	5.2	3.2
5	4.6	13	16	10	12	91	86	135	46	14	5.2	a3.2
6	3.4	14	16	10	13	85	84	145	36	13	5.2	a3.2
7	3.4	16	15	9	14	77	86	125	33	11	5.2	a3.5
8	6.2	53	14	8	16	67	90	109	31	11	4.8	a3.2
9	7.0	76	14	8	14	57	122	414	31	10	4.8	a3.2
10	7.5	61	14	9	12	47	585	377	31	10	4.8	a3.2
11	8.0	43	14	8.5	*9	41	856	214	31	11	4.8	a3.2
12	8.5	34	14	7.5	9	43	996	150	30	14	4.4	a3.2
13	8.5	30	13	7	10	63	856	114	40	12	4.4	a3.5
14	8.5	26	12	7	11	339	533	90	76	11	4.0	a4.0
15	10	26	12	7.5	12	772	507	78	46	11	4.0	4.0
16	16	27	12	7.5	13	*870	546	76	35	11	3.6	2.8
17	17	28	12	7.5	13	650	351	69	39	11	2.8	2.4
18	13	28	12	7.5	13	416	249	64	41	11	2.8	2.4
19	13	26	13	8	13	267	176	59	39	11	2.4	2.4
20	11	22	14	8.0	13	198	165	55	36	11	2.4	2.4
21	9.5	22	14	8.0	15	170	243	54	41	11	2.4	2.8
22	9.0	20	13	8.0	74	155	572	53	88	10	3.2	2.8
23	9.0	20	12	8.0	125	140	716	61	135	10	3.2	2.8
24	9.0	20	12	8.0	130	130	611	102	78	11	3.6	2.4
25	9.0	20	12	8.0	155	135	403	90	54	11	3.6	a2.5
26	8.5	18	13	8.5	403	145	279	82	42	11	3.6	a2.5
27	8.5	17	14	13	351	273	198	72	34	10	5.6	a2.5
28	8.5	17	14	12	165	261	155	61	30	9.6	7.8	a2.5
29	8.5	17	11	11	135	209	135	54	24	9.6	8.2	a3.5
30	8.0	16	*9.5	11	-	165	116	52	20	9.2	6.4	a5.0
31	8.5	-	9.5	12	-	130	-	54	-	8.7	5.2	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for St. Joseph River near Fort Wayne.
Note.- Stage-discharge relation affected by ice Dec. 13-19, Dec. 22 to Jan. 4, Jan. 7-13, Feb. 11-17.

Monthly discharge, in second-feet, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 1943	556	36	10	17.9	0.192	0.22
September	504.7	91	5.0	16.8	.181	.20
Water year	-	-	-	-	-	-
October 1943	266.4	17	3.4	8.59	.092	.11
November	756.5	76	9.5	25.2	.271	.30
December	417.0	17	9.5	13.5	.145	.17
Calendar year	-	-	-	-	-	-
January 1944	277.5	13	7	8.95	.096	.11
February	1,798	403	9	62.0	.667	.72
March	6,466	870	41	209	2.25	2.59
April	10,128	996	84	338	3.63	4.05
May	3,498	414	52	113	1.22	1.40
June	1,506	135	20	50.2	.540	.60
July	354.1	17	8.7	11.4	.123	.14
August	143.3	8.2	2.4	4.62	.050	.06
September	93.5	5.0	2.4	3.12	.034	.04
Water year 1943-44	25,704.3	996	2.4	70.2	.755	10.29

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

St. Marys River near Fort Wayne, Ind.

Location.- Water-stage recorder, lat. 41°00', long. 85°08', in sec. 35, T. 30 N., R. 12 E., 130 feet downstream from highway bridge, 4 miles south of Fort Wayne, and 12 miles upstream from mouth.
Drainage area.- 753 square miles.
Records available.- November 1930 to September 1944 in reports of Geological Survey. October 1924 to October 1925 and July to September 1927 in reports of Indiana Department of Conservation.
Average discharge.- 12 years (1931-33, 1934-44), 497 second-feet.
Extremes.- Maximum discharge during year, 8,930 second-feet Apr. 13 (gage height, 16.38 feet); minimum, 6.7 second-feet Sept. 23 (gage height, 0.55 foot).
1930-44: Maximum discharge, 13,400 second-feet May 19, 1943 (gage height, 18.79 feet); minimum observed, 3.4 second-feet Oct. 19, 1934 (gage height, 0.28 foot).
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 7 to Nov. 7)

Oct. 1 to Apr. 12

0.7	23	2.9	324
.9	38	3.4	438
1.4	88	4.2	670
1.8	136	5.8	1,220
2.3	211	6.2	1,380

Note.- Same as following table above 6.2 feet.

Apr. 13 to Sept. 30

0.5	4.7	1.9	160	8.0	2,150
.6	8.7	2.4	250	10.5	3,540
.7	15	3.2	430	13.0	5,310
.8	24	5.0	960	15.3	7,480
1.5	102	6.5	1,500	16.4	8,930

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	44	51	30	45	936	936	510	358	36	17	16
2	53	45	50	30	40	734	817	405	358	33	19	17
3	52	64	47	30	37	492	625	358	780	31	19	18
4	51	118	44	31	40	873	492	324	1,100	28	17	17
5	49	185	44	32	42	1,870	388	335	870	28	17	13
6	48	157	52	a30	42	1,740	324	430	840	27	17	12
7	47	342	58	a27	42	2,890	304	405	840	27	19	10
8	47	612	58	a25	40	3,120	324	393	750	27	38	10
9	46	451	a55	a23	39	2,840	410	1,770	495	25	56	9.9
10	44	324	a52	a26	36	2,670	3,060	2,400	270	22	30	9.3
11	42	264	a50	a24	30	2,620	6,140	1,380	186	23	19	8.7
12	41	211	a47	a23	25	2,300	8,650	840	152	35	14	11
13	40	179	44	23	27	1,740	8,790	660	132	40	12	14
14	39	149	40	24	32	1,380	8,230	510	150	48	11	15
15	39	126	36	25	37	1,260	7,480	393	144	45	11	15
16	43	117	35	25	40	1,380	6,380	335	119	33	44	14
17	50	106	35	25	40	2,050	4,620	291	150	26	108	12
18	68	95	36	25	39	1,500	2,890	270	155	23	90	10
19	130	89	38	25	35	1,040	1,660	381	126	24	132	9.3
20	220	86	38	25	35	902	1,170	630	106	23	197	8.7
21	176	81	38	27	40	902	960	870	92	23	154	7.5
22	121	77	36	27	200	783	1,650	570	84	17	97	7.9
23	86	74	34	27	1,400	834	3,120	393	74	15	63	7.9
24	70	68	35	27	1,220	1,340	3,730	335	61	15	43	10
25	59	63	36	28	1,000	1,080	2,890	433	53	14	28	8.3
26	53	60	37	30	1,870	1,040	1,870	472	50	19	21	7.1
27	48	59	38	32	1,870	1,260	1,500	705	50	23	18	7.5
28	45	58	39	35	1,340	1,340	1,240	2,050	49	25	21	9.3
29	42	56	37	35	*1,080	1,140	930	1,700	44	22	20	15
30	42	*54	32	35	-	1,140	705	900	39	21	17	17
31	43	-	*30	*41	-	970	-	555	-	19	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,987	220	39	64.1	0.085	0.10
November	4,414	612	44	147	.195	.22
December	1,302	58	30	42.0	.056	.06
Calendar year 1943	303,653	13,000	30	832	1.10	14.99
January	872	41	23	28.1	.037	.04
February	10,763	1,870	25	371	.493	.53
March	46,166	3,120	492	1,489	1.98	2.28
April	82,285	8,790	304	2,743	3.64	4.06
May	22,003	2,400	270	710	.943	1.09
June	8,677	1,100	39	289	.384	.43
July	817	48	14	26.4	.035	.04
August	1,386	197	11	44.7	.059	.07
September	347.4	18	7.1	11.6	.015	.02
Water year 1943-44	181,019.4	8,790	7.1	495	.657	8.94

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for St. Joseph River near Fort Wayne and Cedar Creek at Auburn.
Note.- Stage-discharge relation affected by ice Dec. 13 to Feb. 23 (no gage-height record Jan. 6-12).
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Tiffin River at Stryker, Ohio

Location.- Water-stage recorder, lat. 41°30'05", long. 84°25'50", in SW¼ sec. 5, T. 6 N., R. 4 E., at electric railroad bridge at west edge of Stryker. Datum of gage is 685.5 feet above mean sea level, adjustment of 1912.

Drainage area.- 444 square miles.

Records available.- October 1940 to September 1944. September 1921 to September 1928 at site about 3 miles downstream, published as Tiffin River near Stryker.

Average discharge.- 11 years, 296 second-feet.

Extremes.- Maximum discharge during year, 3,800 second-feet Apr. 12 (gage height, 13.5 feet); minimum, 12 second-feet Sept. 24; minimum gage height, 1.25 feet Aug. 14, 15. 1921-28, 1940-44: Maximum discharge 5,060 second-feet May 20, 1943 (gage height, 14.2 feet); minimum, 5.0 second-feet Sept. 20, 1941.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	68	75	42	a50	1,060	830	418	311	84	26	23
2	38	76	74	40	a50	605	670	405	730	75	25	23
3	38	72	71	42	b60	442	568	430	657	68	25	19
4	36	70	70	42	b50	b350	492	430	430	61	24	16
5	34	66	68	42	b60	b300	418	468	342	51	26	14
6	34	64	70	45	b55	b320	355	631	261	49	34	14
7	34	176	86	45	b50	b350	330	685	199	44	28	15
8	32	442	95	44	a45	b320	342	562	159	44	24	16
9	32	468	95	40	a45	b300	a450	822	139	44	22	14
10	31	355	91	34	a40	b250	a1,200	1,290	131	45	21	14
11	31	261	b70	36	a35	b250	a2,000	1,320	139	44	20	14
12	31	224	b60	*36	f31	b300	3,500	1,210	138	40	20	15
13	32	242	b45	a35	a40	b600	3,280	a800	116	42	19	20
14	38	242	b50	a30	a45	855	2,440	a600	122	42	18	23
15	48	205	*61	28	a50	1,180	1,820	a450	126	38	17	20
16	52	255	59	31	a45	1,530	1,610	a350	104	34	17	20
17	69	255	49	32	a45	2,220	1,610	a350	89	32	19	17
18	75	211	44	34	a50	2,330	1,570	a350	81	31	25	17
19	72	174	45	34	b50	1,810	1,320	a300	80	29	31	15
20	62	161	46	b35	a50	1,400	1,130	a300	81	29	27	14
21	56	151	49	b35	a60	960	657	a800	81	29	24	15
22	52	132	49	b35	a150	618	631	a700	79	30	22	15
23	51	112	42	b35	a1,200	555	1,050	a600	92	29	23	14
24	49	102	36	b35	*b900	618	1,410	a550	120	27	24	13
25	46	94	34	b35	b1,000	618	1,660	a800	299	26	23	14
26	49	90	36	b37	b1,200	592	1,570	a1,200	355	28	21	14
27	51	89	40	b40	1,380	903	1,320	902	280	36	19	14
28	50	86	45	b75	1,410	1,110	948	700	165	34	20	21
29	51	80	46	148	1,380	*1,130	618	568	119	31	24	25
30	60	76	42	a100	-	1,070	492	455	98	28	23	23
31	64	-	40	a70	-	992	-	355	-	27	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,438	75	31	46.4	0.105	0.12
November	5,099	468	64	170	.383	.43
December	1,783	95	34	57.5	.130	.15
Calendar year 1943	195,597	4,740	31	536	1.21	16.38
January	1,392	148	28	44.9	.101	.12
February	9,626	1,410	31	332	.748	.81
March	25,938	2,330	250	837	1.89	2.18
April	36,291	3,500	330	1,210	2.73	3.05
May	19,807	1,320	300	639	1.44	1.66
June	6,123	730	79	204	.459	.51
July	1,251	84	26	40.4	.091	.10
August	714	34	17	23.0	.052	.06
September	511	25	13	17.0	.038	.04
Water year 1943-44	109,973	3,500	13	300	.676	9.23

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis 1 discharge measurement (May 24), weather records, and records for Bean Creek at Powers.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Bean Creek at Powers, Ohio

Location.- Water-stage recorder, lat. 41°40'40", long. 84°13'50", in NE¼ sec. 24, T. 9 S., R. 1 E., at bridge on U. S. Highway 20, 1 mile east of Powers and 2½ miles upstream from Iron Creek. Datum of gage is 722.6 feet above mean sea level, adjustment of 1912.

Drainage area.- 238 square miles.

Records available.- October 1940 to September 1944.

Extremes.-Maximum discharge during year, 1,600 second-feet Mar. 16 (gage height, 9.28 feet); minimum daily, 12 second-feet Aug. 27, 28, Sept. 23-25.
1940-44: Maximum discharge, 3,560 second-feet May 12, 1943 (gage height, 12.6 feet); minimum, 6.4 second-feet Sept. 17, 1941; minimum gage height, 0.62 foot Aug. 7-10, 1941.

Remarks.- Records good except those for periods of ice effect or no gage-height record which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	40	45	35	45	308	340	230	174	60	18	16
2	32	42	44	35	50	244	316	244	230	54	17	14
3	31	46	45	35	55	200	276	244	230	46	17	14
4	30	46	44	35	50	170	237	237	223	40	18	13
5	30	45	42	35	55	150	204	260	180	39	25	13
6	30	46	43	40	50	160	192	364	148	34	20	13
7	29	78	48	40	45	180	186	316	120	36	h17	14
8	29	179	52	35	40	160	192	260	100	33	16	13
9	29	161	51	35	40	140	198	396	90	34	15	13
10	29	121	45	35	35	130	570	617	85	32	14	13
11	29	102	40	35	30	120	779	420	80	30	14	13
12	29	92	35	*33	30	260	1,270	324	80	33	14	14
13	29	86	30	31	35	430	1,070	260	75	31	14	16
14	31	79	45	30	40	396	712	223	71	30	14	16
15	32	74	*58	28	45	824	617	192	66	28	14	16
16	37	73	45	30	40	1,470	927	186	58	27	h13	14
17	45	74	35	30	40	1,170	693	186	53	25	15	14
18	48	68	35	30	45	750	500	186	50	24	18	14
19	44	66	35	30	45	500	450	156	49	24	20	13
20	40	66	35	28	45	380	400	159	55	25	18	13
21	39	64	35	28	50	340	350	360	50	24	17	13
22	38	61	35	28	150	284	350	340	50	23	16	13
23	37	58	35	30	800	284	674	300	60	22	15	12
24	37	54	30	30	*712	316	814	244	266	20	14	12
25	36	f52	30	30	564	284	617	436	340	20	14	12
26	36	f50	35	32	740	276	f484	484	237	23	13	13
27	37	50	35	37	904	404	404	364	152	24	12	13
28	37	49	40	82	598	452	332	356	109	22	12	14
29	37	48	40	116	404	*388	284	f316	86	20	14	15
30	38	47	40	80	-	484	244	f244	80	20	16	16
31	39	-	35	55	-	380	-	204	-	18	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,077	48	29	34.7	0.146	0.17
November	2,117	179	40	70.6	.297	.33
December	1,242	58	30	40.1	.168	.19
Calendar year 1943	103,059	3,470	29	282	1.18	16.09
January	1,213	116	28	39.1	.164	.19
February	5,782	904	30	199	.836	.90
March	12,034	1,470	120	388	1.63	1.88
April	14,682	1,270	186	489	2.05	2.29
May	9,108	617	156	294	1.24	1.43
June	3,647	340	49	122	.513	.57
July	921	60	18	29.7	.125	.14
August	490	25	12	15.8	.066	.08
September	412	16	12	13.7	.058	.06
Water year 1943-44	52,725	1,470	12	144	.605	8.23

Peak discharge.- Feb. 27 (12:30 a.m.) 1,070 sec.-ft.; Mar. 16 (11:30 a.m.) 1,600 sec.-ft.; Apr. 10 (8 p.m.) 771 sec.-ft.; Apr. 12 (7:30 a.m.) 1,330 sec.-ft.; Apr. 16 (9:30 a.m.) 1,020 sec.-ft.; Apr. 24 (5:30 a.m.) 904 sec.-ft.

* Winter discharge measurement made on this day.

f Computed on basis of partly estimated gage-height record.

h Computed on basis of tape-gage readings.

Note.- Stage discharge relation affected by ice Dec. 10 to Jan. 26 (No gage-height record Dec. 16 to Jan. 12), Jan. 31 to Feb. 23, Mar. 1-13. No gage-height record Apr. 18-22, June 8-13, 21-23, Aug. 2-6, 8-15, 17-23, 27-31; discharge computed on basis of recorded range in stage, weather records, and records for Tiffin River at Stryker.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Auglaize River near Fort Jennings, Ohio

Location.- Water-stage recorder, lat. 40°56'55", long. 84°15'58", in SE¼ sec. 15, T. 1 S., R. 5 E., at highway bridge, 3½ miles northeast of Fort Jennings and 6 miles upstream from Ottawa River. Datum of gage is 713.9 feet above mean sea level, adjustment of 1912.

Drainage area.- 333 square miles.

Records available.- August 1921 to December 1935, October 1940 to September 1944.

Average discharge.- 18 years, 277 second-feet.

Extremes.- Maximum discharge during year, 6,710 second-feet Apr. 12 (gage height, 15.5 feet); minimum, 8.4 second-feet Oct. 10, 11; minimum gage height, 1.37 feet Sept. 27. 1921-35, 1940-44: Maximum discharge, 8,200 second-feet Jan. 15, 1930 (gage height, 16.6 feet); minimum, 5.0 second-feet Aug. 28, 1932 (gage height, 0.75 foot).

Remarks.- Records good except those for period of no gage-height record, which are poor. Some diversion from Lake St. Marys by Miami & Erie Canal into Jennings Creek, tributary to Auglaize River above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	38	33	36	39	210	312	165	68	23	17	34
2	15	59	35	35	40	166	242	157	198	22	16	28
3	15	104	32	32	41	149	195	148	363	21	16	24
4	15	82	36	32	39	274	166	140	608	21	17	23
5	16	56	37	36	38	1,260	153	144	303	20	31	20
6	15	46	38	37	39	1,030	138	210	168	21	26	18
7	13	45	39	40	37	2,650	129	129	132	23	24	18
8	11	54	39	38	38	4,390	136	202	99	24	21	17
9	10	104	42	39	42	a1,000	202	210	78	23	17	17
10	8.6	98	42	44	39	a350	1,260	464	69	23	19	16
11	8.6	74	42	38	32	a200	3,050	407	61	24	21	16
12	10	61	36	33	36	363	6,190	276	58	26	71	17
13	9.8	52	38	35	41	407	5,840	210	57	45	48	19
14	20	49	35	32	41	385	2,590	170	161	31	74	23
15	34	44	32	32	38	396	870	148	148	26	106	23
16	40	43	33	32	38	501	1,030	135	99	28	74	23
17	90	40	33	32	39	1,350	1,030	127	69	24	135	20
18	250	38	33	31	42	1,110	654	123	58	23	226	18
19	149	34	35	32	41	542	452	126	47	26	149	16
20	104	35	34	32	45	322	332	142	41	23	83	16
21	76	34	32	54	49	250	285	175	42	22	57	17
22	59	32	30	36	83	234	342	147	54	20	43	18
23	47	31	30	38	903	418	820	119	52	19	40	16
24	46	30	30	38	896	1,260	1,670	103	46	17	39	14
25	44	30	31	39	429	845	1,260	110	40	16	33	11
26	43	29	32	41	676	488	608	112	37	17	30	11
27	39	30	32	43	948	429	396	104	36	28	31	9.8
28	41	30	32	44	476	948	276	101	33	23	36	11
29	41	31	30	43	294	676	218	89	31	20	36	15
30	40	32	34	38	-	476	184	84	26	21	31	20
31	36	-	34	41	-	440	-	77	-	19	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,362.0	250	8.6	43.9		
November	1,465	104	29	48.8		
December	1,071	42	30	34.5		
Calendar year 1943	120,443.0	6,710	8.6	330		
January	1,133	44	31	36.5		
February	5,539	948	32	191		
March	23,519	4,390	149	759		
April	31,030	6,190	129	1,034		
May	5,054	464	77	163		
June	3,282	608	26	109		
July	719	45	16	23.2		
August	1,601	226	16	51.6		
September	548.8	34	9.8	18.3		
Water year 1943-44	76,323.8	6,190	8.6	209		

a No gage-height record; discharge computed on basis of weather records and records for Ottawa River at Allentown and Blanchard River near Findlay.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Auglaize River near Defiance, Ohio

Location.- Water-stage recorder, lat. 41°14'15", long. 84°24'02", in NE¼ sec. 9, T. 3 N., R. 4 E., 125 feet downstream from dam and power plant of Toledo Edison Co., a quarter of a mile upstream from Jackson ditch, and 3 miles south of Defiance. Datum of gage is 660.00 feet above mean sea level, adjustment of 1912.

Drainage area.- 2,329 square miles.

Records available.- April 1915 to December 1935, October 1940 to September 1944. May to August 1903 at site at highway bridge 1½ miles downstream.

Average discharge.- 2 years (1915-35, 1940-44) 1,587 second-feet.

Extremes.- Maximum discharge during year, 37,700 second-feet Apr. 13 (gage height, 22.4 feet); minimum daily, 28 second-feet Dec. 5.
1915-35, 1940-44: Maximum discharge, 48,000 second-feet May 19, 1943 (gage-height, 25.5 feet, from floodmark), from rating curve extended above 22,000 second-feet on basis of flood-routing studies; minimum daily, 6 second-feet Oct. 17, 1923.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow regulated by power plant above station. Some diversion by Miami & Erie Canal from Lake St. Marys into Jennings Creek, a tributary to Auglaize River above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 25 to Sept. 30)

4.4	25	5.8	675	10.0	5,400
4.5	50	6.2	960	12.0	9,000
4.6	82	6.6	1,290	14.0	13,200
4.7	117	7.0	1,650	16.0	18,200
5.0	249	8.0	2,690	18.0	24,000
5.4	440	9.0	3,950	22.0	36,400

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	35	84	70	63	1,740	2,740	974	405	128	63	53
2	35	30	88	70	66	1,420	2,360	40	1,310	48	66	48
3	38	190	90	70	168	1,160	1,840	486	2,400	56	69	42
4	69	450	144	70	148	1,340	1,470	418	2,920	53	66	40
5	45	429	28	70	146	1,650	1,240	1,220	3,100	53	69	35
6	65	30	290	80	106	2,200	1,120	604	2,200	53	69	218
7	38	336	30	90	149	5,600	960	714	1,220	56	69	42
8	40	734	32	120	95	10,200	1,120	1,640	786	63	69	42
9	42	820	113	80	45	9,100	912	2,980	491	63	72	45
10	42	776	298	70	137	6,500	4,730	3,900	300	66	186	40
11	40	536	30	68	126	5,300	19,600	6,420	233	66	72	42
12	38	90	50	65	110	4,500	31,600	4,360	293	63	72	40
13	72	65	60	65	68	3,950	36,400	2,840	451	60	400	40
14	42	212	59	65	146	3,560	28,800	1,370	720	60	112	94
15	51	70	53	300	121	3,690	15,600	772	542	131	232	32
16	48	35	239	80	53	4,360	9,200	784	547	53	63	38
17	48	246	50	430	135	7,310	8,600	708	865	63	120	35
18	336	154	63	80	92	8,400	8,210	620	45	63	198	35
19	399	96	69	80	63	7,460	6,930	511	42	66	215	30
20	226	155	76	70	159	6,080	5,570	909	82	69	118	53
21	170	142	79	70	164	4,800	4,080	624	126	69	85	30
22	175	96	72	70	750	3,690	3,170	866	589	76	100	35
23	198	127	79	125	1,990	2,740	2,140	1,020	332	79	45	35
24	32	192	89	70	3,430	2,920	8,320	582	294	79	45	35
25	42	32	80	70	3,430	3,560	10,800	388	167	66	42	35
26	40	35	80	70	3,430	3,950	7,280	104	126	56	48	35
27	290	190	80	60	4,360	3,690	4,220	949	133	50	45	32
28	124	32	80	60	3,820	3,430	2,880	838	45	60	96	35
29	470	134	80	140	2,420	3,300	1,150	850	48	66	35	38
30	232	96	70	126	-	3,300	1,230	898	50	63	81	40
31	113	-	70	60	-	3,100	-	552	-	63	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,706	470	32	120		
November	6,565	820	30	219		
December	2,805	298	28	90.5		
Calendar year 1943	815,814	46,000	28	2,235		
January	3,004	430	60	96.9		
February	25,990	4,360	45	896		
March	134,000	10,200	1,160	4,323		
April	234,272	36,400	912	7,809		
May	39,941	6,420	40	1,288		
June	20,862	3,100	42	695		
July	2,060	131	48	66.5		
August	3,075	400	35	99.2		
September	1,394	218	30	46.5		
Water year 1943-44	477,674	36,400	28	1,305		

Note.- Doubtful gage-height record Dec. 25 to Jan. 15 and no gage-height record Jan. 16-29, Mar. 9-11; discharge computed on basis of power-plant records and 1 discharge measurement of leakage.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Ottawa River at Allentown, Ohio

Location.- Water-stage recorder and concrete control, lat. 40°45'18", long. 84°11'41", in NW¼ sec. 29, T. 3 S., R. 6 E., at highway bridge at Allentown, Allen County, 0.3 mile downstream from Kessler Run. Datum of gage is 789.67 feet above mean sea level, adjustment of 1912.

Drainage area.- 168 square miles.

Records available.- October 1923 to December 1935, August 1943 to September 1944.

Average discharge.- 13 years, 116 second-feet.

Extremes.- 1943: Maximum discharge during period Aug. 14 to Sept. 30, 126 second-feet Aug. 16 (gage height, 3.42 feet); minimum, 13 second-feet Sept. 30 (gage height, 2.44 feet).

1943-44: Maximum discharge during water year, 3,880 second-feet Apr. 11 (gage height, 9.00 feet); minimum, 11 second-feet Oct. 21, Dec. 13, Aug. 9; minimum gage height, 2.34 feet Aug. 9.

1923-35, 1943-44: Maximum discharge, that of Apr. 11, 1944; minimum, 1.4 second-feet June 28, 29, 1933.

Flood of Mar. 15, 1939, reached a stage of 10.1 feet and flood of May 1943 a stage of about 10 feet; discharge not determined.

Remarks.- Records good. Diurnal fluctuation and some regulation due to operation of water-supply and sewage-treatment plants of city of Lima above station.

Note.- Estimated discharge, in second-feet, for October and November 1923 (not previously published) are given below in order to complete the water year 1924:

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October 1923.....	-	-	16.0	0.095	0.11
November.....	-	-	14.1	.084	.09
Water year 1923-24..	2,740	-	152	.905	12.36

Discharge, in second-feet, 1943-44

1943

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	18	9	-	19	17	39	22	25	19	22
2	-	18	10	-	22	18	25	18	26	20	18
3	-	18	11	-	18	19	22	17	27	31	16
4	-	18	12	-	17	20	20	17	28	20	17
5	-	34	13	-	16	21	20	18	29	17	17
6	-	33	14	36	18	22	19	17	30	17	17
7	-	34	15	26	18	23	18	17	31	18	-
8	-	20	16	60	29	24	19	17			

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	55	16	18	24	33	152	66	37	20	17	19
2	16	32	16	16	22	30	131	52	110	20	17	17
3	15	22	15	18	24	30	104	47	87	18	18	17
4	14	18	16	22	22	285	78	50	178	20	17	14
5	17	20	14	22	22	352	69	74	178	19	21	15
6	17	19	19	23	20	769	60	98	154	20	17	18
7	17	29	22	20	19	2,010	51	111	80	21	15	18
8	17	31	17	19	22	562	72	80	48	22	16	17
9	16	24	17	18	20	290	116	94	35	20	14	17
10	14	20	16	18	20	116	868	234	26	20	14	16
11	13	19	16	19	22	87	2,390	149	22	22	14	15
12	15	19	13	20	20	80	2,800	104	28	46	18	17
13	14	18	12	20	22	126	942	80	26	33	48	20
14	30	16	14	19	22	126	595	67	61	23	20	20
15	16	16	14	21	24	118	511	59	40	22	22	20
16	84	18	17	19	23	354	628	45	28	20	32	19
17	32	17	18	19	26	660	415	40	27	18	23	18
18	21	16	18	20	38	440	252	59	27	20	22	16
19	18	16	16	19	26	234	172	121	24	20	20	16
20	15	16	15	19	26	140	137	72	24	20	19	16
21	13	15	16	19	28	128	114	54	22	19	18	18
22	16	14	16	20	124	98	140	49	31	18	21	14
23	13	16	16	21	247	428	438	52	32	18	22	14
24	13	16	14	17	126	595	628	49	28	16	24	13
25	15	16	15	19	70	312	371	68	22	18	20	13
26	17	14	15	21	238	217	196	71	20	19	18	15
27	17	16	18	22	161	290	137	64	23	35	18	16
28	16	14	18	22	67	390	100	81	24	19	22	30
29	16	13	18	21	40	271	63	85	23	17	20	28
30	16	16	18	19	-	290	71	46	20	17	18	18
31	17	-	18	21	-	230	-	35	-	15	20	-

Peak discharge.- Mar. 7 (5:30 a.m.) 2,590 sec.-ft.; Mar. 17 (1 a.m.) 822 sec.-ft.; Mar. 23 (10 p.m.) 885 sec.-ft.; Apr. 10 (1 p.m.) 1,100 sec.-ft.; Apr. 11 (10 p.m.) 3,880 sec.-ft.; Apr. 23 (12 p.m.) 790 sec.-ft.

Monthly discharge, in second-feet, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
August 14-31, 1943.....	446	60	17	24.8	0.148	0.10
September.....	600	34	16	20.0	.119	.13
October 1943	586	84	13	18.9	.112	.13
November.....	591	55	13	19.7	.117	.13
December.....	503	22	12	16.2	.096	.11
January 1944.....	611	23	16	19.7	.117	.13
February.....	1,565	247	19	54.0	.321	.35
March.....	10,091	2,010	30	326	1.94	2.24
April.....	12,801	2,800	51	427	2.54	2.83
May.....	2,356	234	35	76.0	.452	.52
June.....	1,485	178	20	49.5	.295	.33
July.....	655	46	15	21.1	.126	.15
August.....	625	48	14	20.2	.120	.14
September.....	524	30	13	17.5	.104	.12
Water year 1943-44	32,393	2,800	12	88.5	.527	7.18

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Blanchard River near Findlay, Ohio

Location.- Water-stage recorder, lat. 41°03'21", long. 83°41'17", on east line sec. 10, T. 1 N., R. 10 E., at highway bridge 2 miles west of Findlay. Datum of gage is 754.55 feet above mean sea level.

Drainage area.- 343 square miles.

Records available.- November 1923 to December 1935, October 1940 to September 1944.

Average discharge.- 15 years, 208 second-feet.

Extremes.- Maximum discharge during year, 5,340 second-feet Apr. 12 (gage height, 11.3 feet); minimum, 2.1 second-feet Aug. 20 (gage height, 0.66 foot).
1923-35, 1940-44: Maximum discharge, 6,320 second-feet Dec. 1, 1927 (gage height, 14.5 feet); minimum, 0.4 second-foot Aug. 26, 27, Sept. 3, 1934.
Flood of March 1913 reached a stage of 18.5 feet.

Remarks.- Records good except those for period of ice effect, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	24	12	7.8	14	71	346	121	80	9.6	3.2	4.0
2	8.2	24	12	7.4	14	54	244	109	133	9.0	3.2	3.2
3	8.2	17	13	12	16	50	188	90	1,190	9.0	4.2	3.0
4	8.6	18	13	11	15	67	162	84	874	8.2	5.4	2.8
5	9.0	22	13	10	14	71	139	109	540	8.2	6.6	3.0
6	8.6	9.6	15	7.8	13	342	121	205	364	8.2	5.0	4.5
7	7.8	36	14	b8.0	14	1,380	111	299	192	7.4	4.0	4.2
8	8.2	43	14	b9.0	13	1,000	115	195	107	7.4	4.8	3.0
9	7.8	30	14	b9.0	11	615	119	218	69	6.6	4.5	2.8
10	8.2	25	11	b8.0	12	250	678	344	56	6.2	5.4	3.0
11	10	23	9.6	b8.0	11	198	2,650	247	48	6.6	4.2	2.5
12	9.0	19	9.6	b8.0	9.0	250	4,760	188	41	14	7.4	3.5
13	9.0	16	11	b7.0	8.2	285	3,200	148	43	8.6	3.8	4.8
14	11	16	9.0	*b6.4	7.8	374	1,040	121	61	6.2	3.2	3.0
15	7.0	15	8.6	b6.0	9.0	668	685	97	50	5.8	3.8	2.5
16	37	16	7.8	b6.0	9.0	825	1,000	94	43	3.5	9.6	2.8
17	21	14	*7.4	b7.0	12	1,380	720	88	30	4.8	7.4	2.5
18	14	14	6.2	b7.0	15	878	513	271	24	5.8	6.2	2.5
19	13	14	6.2	b7.0	13	432	364	150	23	5.8	5.4	3.0
20	12	14	8.2	6.6	14	257	274	148	19	5.0	3.5	3.8
21	9.6	13	7.4	5.8	29	192	241	109	16	5.0	4.0	3.0
22	11	13	7.8	7.8	133	178	232	90	20	4.5	3.5	3.2
23	11	13	7.0	8.6	302	454	471	69	22	3.2	9.6	2.8
24	9.6	13	6.2	9.6	195	808	878	64	18	3.5	4.5	3.0
25	11	12	5.8	10	*145	580	685	61	13	3.8	3.5	3.5
26	18	12	7.0	12	208	360	423	51	13	6.2	3.2	4.2
27	11	13	7.4	17	155	328	292	44	13	7.0	3.2	3.8
28	11	13	8.2	23	141	632	215	69	11	6.6	5.0	6.2
29	12	13	8.2	22	103	598	165	192	11	3.2	3.5	5.8
30	13	13	7.8	16	-	720	137	103	10	3.2	3.2	2.8
31	15	-	7.8	23	-	560	-	59	-	3.0	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	358.4	37	7.0	11.6	0.034	0.04
November	537.6	43	9.6	17.9	.052	.06
December	295.2	15	5.8	9.52	.028	.03
Calendar year 1943	89,289.4	4,210	5.8	245	.714	9.67
January	313.8	23	5.8	10.1	.029	.03
February	1,655	302	7.8	57.1	.166	.18
March	14,857	1,380	50	479	1.40	1.61
April	21,170	4,760	111	706	2.06	2.30
May	4,237	344	44	137	.399	.46
June	4,134	1,190	10	138	.402	.45
July	195.1	14	3.0	6.29	.018	.02
August	148.0	9.6	3.2	4.77	.014	.02
September	102.7	6.2	2.5	3.42	.010	.01
Water year 1943-44	48,003.8	4,760	2.5	131	.382	5.21

Peak discharge.- Mar. 7 (7 a.m.) 1,590 sec.-ft.; Mar. 17 (4:30 a.m.) 1,500 sec.-ft.; Apr. 12 (5 a.m.) 5,340 sec.-ft.; Apr. 16 (10 a.m.) 1,070 sec.-ft.; June 3 (5 a.m.) 1,540 sec.-ft.; June 4 (3 a.m.) 1,300 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Portage River at Woodville, Ohio

Location.- Water-stage recorder, lat. 41°26'55", long. 83°21'41", in sec. 28, T. 6 N., R. 13 E., at bridge on U. S. Highway 20 in Woodville. Datum of gage is 615.14 feet above mean sea level, adjustment of 1912.
Drainage area.- 433 square miles.
Records available.- July 1928 to December 1935, October 1939 to September 1944.
Average discharge.- 12 years, 252 second-feet.
Extremes.- Maximum discharge during year, 9,300 second-feet Apr. 12 (gage height, 13.08 feet); minimum, 1.1 second-feet Sept. 22; minimum gage height, 1.95 feet Aug. 11, 12.
1928-35, 1939-44: Maximum discharge, that of Apr. 12, 1944; minimum, 0.3 second-foot Aug. 28, 1931; minimum gage height, 1.60 feet July 25, 26, 1934.
Flood of March 1913 reached a stage of 17 feet, from information by local residents.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 2, July 30 to Sept. 30)

1.9	2.0	2.5	55	4.0	477	8.0	3,050
1.95	3.6	2.7	84	4.5	700	9.0	4,050
2.0	5.8	2.8	101	5.0	930	10.0	5,170
2.1	12	3.0	141	5.5	1,180	11.0	6,370
2.2	20	3.2	190	6.0	1,470	12.0	7,720
2.3	30	3.5	283	7.0	2,200	13.0	9,150

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	21	a24	6.5	25	228	363	157	65	14	6.4	4.9
2	17	96	a23	6	25	159	290	141	414	14	5.4	7.0
3	14	169	a22	7	30	137	204	126	1,610	11	4.5	6.4
4	13	146	a23	8	30	218	177	109	2,410	9.5	4.0	5.8
5	11	94	a23	8	28	469	164	114	790	7.7	4.5	5.4
6	9.5	75	a28	7	28	588	135	177	374	7.0	5.4	4.0
7	9.5	74	a32	6.5	35	a2,500	120	210	185	7.0	5.4	2.6
8	11	282	a30	7	24	a1,400	141	155	114	7.0	8.3	2.3
9	11	398	a25	7	22	745	234	221	81	6.4	5.8	2.3
10	11	225	a21	6	22	469	2,390	a350	69	6.4	4.0	2.6
11	10	139	17	6	20	355	4,840	a700	65	7.7	3.6	3.6
12	8.3	110	16	6	18	507	8,310	a650	55	10	5.8	3.3
13	8.9	105	10	*5.5	15	905	7,260	498	52	11	11	3.6
14	11	103	15	5	12	779	3,520	325	137	12	14	3.0
15	10	76	13	5	11	2,690	1,520	219	210	14	13	3.3
16	23	68	*9	6.5	11	2,440	2,280	185	177	8.3	9.5	3.3
17	37	68	7	8	11	2,690	1,540	169	114	7.0	7.7	3.3
18	54	56	6	7	10	1,420	955	157	74	5.4	12	3.3
19	41	52	7	9	10	a850	678	177	58	4.9	11	3.0
20	32	52	8	11	15	a500	469	318	48	4.9	7.0	3.0
21	25	45	9	12	20	a350	371	297	41	5.8	5.8	1.6
22	19	40	9	14	35	a300	311	156	32	7.0	5.4	1.6
23	17	40	7	15	1,100	a1,000	583	155	217	5.8	5.8	2.0
24	15	36	6	15	*900	a1,500	1,380	290	185	4.9	7.0	2.6
25	13	30	5	16	600	a1,000	905	601	107	4.9	5.8	4.5
26	13	28	5	18	700	a800	570	363	61	7.7	7.7	4.0
27	11	27	7	27	900	700	394	219	42	15	6.4	4.0
28	16	29	8	45	578	578	290	146	30	18	4.9	3.6
29	22	29	8	48	363	456	207	152	23	16	4.9	4.5
30	21	26	8	35	-	*578	172	105	18	11	4.9	5.8
31	20	-	7	30	-	529	-	76	-	8.3	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	554.2	54	8.3	17.9	0.041	0.05
November	2,739	398	21	91.3	.211	.24
December	438	32	5	14.1	.033	.04
Calendar year 1943	155,471.4	7,860	5	426	.984	13.37
January	413.0	48	5	13.3	.031	.04
February	5,598	1,100	10	193	.446	.48
March	27,840	2,690	137	898	2.07	2.39
April	40,773	8,310	120	1,359	3.14	3.50
May	7,718	700	76	249	.575	.66
June	7,858	2,410	18	262	.605	.68
July	279.6	18	4.9	9.02	.021	.02
August	211.4	14	3.6	6.82	.016	.02
September	110.2	7.0	1.6	3.67	.0085	.009
Water year 1943-44	94,532.4	8,310	1.6	258	.596	8.13

Peak discharge.- Mar. 15 (4 p.m.) 2,960 sec.-ft.; Mar. 17 (9 a.m.) 2,960 sec.-ft.; Apr. 12 (5:30 p.m.) 9,300 sec.-ft.; Apr. 16 (2 p.m.) 2,520 sec.-ft.; Apr. 24 (11 a.m.) 1,610 sec.-ft.; June 4 (7 a.m.) 3,050 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Blanchard River near Findlay.
Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 19, Jan. 30 to Feb. 4, Feb. 9-27.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Sandusky River near Bucyrus, Ohio

Location.- Water-stage recorder, lat. 40°48'13", long. 83°00'21", in NE¼ sec. 10, T. 3 S., R. 16 E., at highway bridge, 1½ miles west of Bucyrus and 12 miles downstream from Loss Creek. Datum of gage is 955.9 feet above mean sea level, adjustment of 1912.

Drainage area.- 89.8 square miles.

Records available.- August 1925 to November 1935, July 1938 to September 1944.

Average discharge.- 16 years, 74.4 second-feet.

Extremes.- Maximum discharge during year, 2,160 second-feet Apr. 12 (gage height, 7.27 feet); minimum, 0.8 second-foot Oct. 18; minimum gage height, 0.82 foot July 25.
1925-35, 1938-44: Maximum discharge observed, 6,900 second-feet Dec. 14, 1927 (gage height, 9.15 feet); minimum discharge, 0.4 second-foot Sept. 29, 1941, July 16, 1942.
Flood of Mar. 23, 1913, reached a stage of 14.5 feet, from floodmarks.

Remarks.- Records good. Low flow slightly affected by operation of reservoirs for municipal supply of Bucyrus.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	7.8	2.5	2.7	6.9	30	79	30	55	5.6	2.9	2.9
2	2.7	2.9	2.5	2.3	7.8	23	63	26	119	6.9	2.7	2.7
3	2.9	3.4	2.9	5.7	8.2	26	50	24	475	6.0	2.7	2.3
4	2.3	5.4	3.1	4.3	6.9	44	44	22	173	5.4	2.7	4.8
5	2.7	5.1	3.4	17	7.3	135	40	40	150	4.0	3.1	144
6	2.7	5.1	5.4	63	7.3	178	36	59	54	3.4	2.5	37
7	2.7	4.6	4.0	36	6.9	845	38	47	30	3.1	2.5	13
8	2.5	4.8	3.4	18	4.5	197	76	36	22	3.1	2.7	6.0
9	2.9	6.0	4.6	14	4.0	74	97	32	15	3.7	3.4	3.1
10	3.1	4.6	4.8	9.1	4.3	55	304	33	16	3.4	4.0	2.0
11	3.1	3.4	4.5	6.4	3.7	42	1,020	35	16	2.9	4.0	1.8
12	3.7	2.5	3.7	5.1	4.6	48	1,480	32	14	4.0	13	2.5
13	5.7	3.1	3.1	4.6	5.1	87	372	27	14	3.7	3.1	3.1
14	5.7	2.5	5.1	4.3	4.8	79	176	22	13	2.9	4.3	5.7
15	4.3	3.4	4.6	4.3	5.4	140	117	20	14	3.1	3.4	4.0
16	5.4	3.4	4.8	3.7	5.4	381	106	18	10	4.0	2.9	4.3
17	1.4	2.9	5.1	3.7	7.3	759	86	20	9.1	3.4	9.1	3.7
18	1.0	2.9	4.8	3.7	8.2	225	67	20	8.2	3.4	6.4	3.4
19	1.4	3.4	4.6	4.0	7.3	106	55	24	6.9	4.0	7.8	3.7
20	2.2	2.9	4.6	4.6	11	64	47	31	5.4	3.4	2.9	12
21	2.5	2.9	4.6	4.3	13	52	62	47	6.9	3.1	5.7	17
22	2.7	2.3	3.4	4.8	84	52	78	28	11	2.9	4.3	9.1
23	2.9	2.3	2.7	5.7	337	262	53	24	312	2.0	19	5.4
24	3.4	2.7	2.5	5.4	119	386	141	19	244	2.0	124	3.7
25	3.7	2.5	2.2	6.0	70	135	130	17	65	1.2	41	2.9
26	5.4	2.3	5.4	7.5	72	88	53	18	33	2.6	16	2.9
27	5.7	2.5	4.3	13	95	108	62	34	20	2.9	10	2.9
28	5.4	2.5	4.8	16	55	167	46	17	15	1.6	7.3	9.1
29	6.9	2.5	5.4	16	40	106	37	13	12	1.6	6.0	5.7
30	5.7	2.7	5.4	10	-	142	32	11	9.1	1.2	3.1	11
31	8.6	-	4.0	10	-	109	-	5.4	-	1.8	4.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	112.9	8.6	1.0	3.64	0.041	0.05
November	105.3	7.8	2.3	3.51	.039	.04
December	126.5	5.4	2.2	4.08	.045	.05
Calendar year 1943	28,406.7	1,840	1.0	77.8	.866	11.75
January	315.5	63	2.3	10.2	.114	.13
February	1,015.2	337	3.7	35.0	.390	.41
March	5,225	845	23	168	1.87	2.16
April	5,107	1,480	32	170	1.89	2.11
May	834.4	59	5.4	26.9	.300	.35
June	1,950.6	475	5.4	65.0	.724	.81
July	105.3	8.6	1.2	3.40	.038	.04
August	326.6	124	2.5	10.5	.117	.13
September	331.7	144	1.8	11.1	.124	.14
Water year 1943-44	15,556.0	1,480	1.0	42.5	.473	6.42

Peak discharge.- Mar. 7 (9 a.m.) 1,170 sec.-ft.; Mar. 17 (3 a.m.) 1,050 sec.-ft.; Mar. 23 (12 p.m) 625 sec.-ft.; Apr. 12 (3:30 a.m.) 2,160 sec.-ft.; June 3 (7:30 a.m.) 678 sec.-ft.; June 23 (4 p.m.) 610 sec.-ft.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Sandusky River near Upper Sandusky, Ohio

Location.- Water-stage recorder, lat. 40°51'02", long. 83°15'23", in sec. 21, T. 2 S., R. 14 E., at highway bridge, three-quarters of a mile upstream from Rock Run and 2 miles northeast of Upper Sandusky. Datum of gage is 792.8 feet above mean sea level, adjustment of 1912.

Drainage area.- 299 square miles.

Records available.- October 1921 to December 1935, January 1938 to September 1944.

Average discharge.- 20 years, 237 second-feet.

Extremes.- Maximum discharge during year, 4,300 second-feet Apr. 12 (gage height, 8.2 feet); minimum, 2.5 second-feet Aug. 13; minimum gage height, 0.94 foot Aug. 13, Sept. 14, 16, 17.

1921-35, 1938-44: Maximum discharge, 8,900 second-feet Dec. 15, 1927 (gage height, 10.5 feet); minimum, 0.9 second-foot Sept. 24, 1939; minimum gage height, 0.67 foot Sept. 6, 7, 1934.

Flood in June 1937 reached a stage of 14.3 feet, from marks in gage well.

Remarks.- Records good except those for periods of ice effect, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1	10	13	11	11	27	98	317	105	34	22	5.6	8.2
2	8.2	13	9.8	11	37	67	242	98	95	19	5.3	6.6
3	7.1	18	11	10	30	58	192	87	480	17	3.6	6.6
4	5.6	19	9.8	9	*27	78	168	78	542	15	3.6	6.0
5	4.6	16	9.8	12	27	152	148	142	344	14	4.2	5.0
6	5.3	12	11	11	26	320	130	298	245	13	6.0	97
7	5.3	15	12	17	22	1,380	118	267	125	13	5.6	59
8	5.6	17	14	30	21	700	145	185	76	10	3.9	26
9	7.1	17	14	45	22	*250	205	148	56	8.8	3.2	16
10	9.8	15	15	35	18	200	477	135	46	9.8	3.6	12
11	10	13	12	25	16	180	1,790	120	40	8.2	2.8	8.8
12	9.8	15	12	20	14	172	4,020	115	37	8.8	3.6	6.0
13	11	14	12	15	14	175	1,720	100	36	8.2	5.0	5.6
14	12	13	*10	*13	14	225	738	89	34	9.3	6.0	3.9
15	10	13	12	12	15	261	519	76	34	8.8	12	3.9
16	14	14	8.2	12	18	636	575	69	33	10	7.6	3.9
17	19	15	8.2	11	23	1,780	470	67	30	8.2	5.6	3.6
18	24	13	7.1	11	28	1,040	325	128	27	6.6	7.6	5.3
19	13	15	7	11	27	447	245	108	23	8.2	5.0	4.6
20	9.3	13	7	12	30	248	200	82	19	7.6	8.8	5.3
21	7.1	12	8	13	30	208	195	78	18	7.6	7.1	5.0
22	7.1	13	9	14	58	178	219	100	18	6.0	6.6	5.0
23	7.1	12	9.5	15	407	346	258	82	18	6.6	7.6	18
24	8.2	12	9.5	16	1,850	1,110	386	74	502	6.0	7.6	14
25	8.8	11	9	17	274	889	474	56	378	4.6	94	9.3
26	8.8	11	9	19	185	348	317	87	150	5.3	58	6.6
27	8.8	11	9	25	205	735	227	67	80	6.0	28	6.6
28	8.8	12	8.5	35	200	1,140	160	65	51	6.0	17	7.1
29	11	12	8.5	47	135	524	145	47	37	8.8	12	8.8
30	11	11	9	40	-	514	122	34	28	17	9.8	6.0
31	12	-	11	36	-	452	-	30	-	12	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	299.4	24	4.6	9.66	0.032	0.04
November	409	19	11	13.6	.045	.05
December	312.9	15	7	10.1	.034	.04
Calendar year 1943	92,653.3	3,890	4.6	254	.849	11.53
January	610	47	9	19.7	.066	.08
February	3,800	1,850	14	131	.438	.47
March	14,911	1,780	58	481	1.61	1.86
April	15,267	4,020	118	509	1.70	1.90
May	3,217	298	30	104	.348	.40
June	3,636	542	18	121	.405	.45
July	311.4	22	4.6	10.0	.033	.04
August	363.9	94	2.8	11.7	.039	.04
September	379.7	97	3.6	12.7	.042	.05
Water year 1943-44	43,517.3	4,020	2.8	119	.398	5.42

Peak discharge.- Feb. 24 (4 a.m.) 2,620 sec.-ft.; Mar. 7 (11 p.m.) 1,850 sec.-ft.; Mar. 17 (5 p.m.) 1,990 sec.-ft.; Mar. 24 (12 m.) 1,260 sec.-ft.; Mar. 28 (2 a.m.) 1,410 sec.-ft.; Apr. 12 (5 p.m.) 4,300 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 19 to Jan. 28, Feb. 11-14, Mar. 8-11.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Sandusky River near Mexico, Ohio

Location.- Water-stage recorder, lat. 41°02'39", long. 83°11'42", in sec. 13, T. 1 N., R. 14 E., at highway bridge, 3 miles upstream from Honey Creek and 4¼ miles north of Mexico. Datum of gage is 733.1 feet above mean sea level, adjustment of 1912.

Drainage area.- 776 square miles.

Records available.- March 1923 to December 1935, July 1938 to September 1944.

Average discharge.- 18 years, 532 second-feet.

Extremes.- Maximum discharge during year, 7,020 second-feet Apr. 14 (gage height, 13.76 feet); minimum, 6.8 second-feet Sept. 19, 20 (gage height, 1.55 feet).
1923-35, 1938-44: Maximum discharge observed, 15,200 second-feet Mar. 22, 1927 (gage height, 19.9 feet); minimum, 1.8 second-feet (regulated) Oct. 31, 1942.
Flood in June 1937 reached a stage of 22.5 feet from information by local residents.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	36	30	26	42	185	935	234	a100	55	12	31
2	22	39	30	25	36	132	643	212	a300	45	12	24
3	21	40	30	26	39	105	490	190	a900	40	13	20
4	21	39	29	27	42	104	392	194	a1,000	35	14	18
5	21	44	29	30	42	110	340	298	a700	31	16	16
6	22	44	31	35	39	364	298	835	a450	28	18	14
7	23	42	36	40	35	2,180	268	a950	a300	25	14	40
8	25	41	37	70	33	2,700	256	a700	219	24	11	77
9	23	44	37	90	26	1,880	298	a500	153	22	9.0	46
10	24	44	36	85	25	876	580	a550	119	21	9.0	32
11	24	44	34	60	24	506	2,330	328	101	20	9.0	23
12	21	40	34	50	23	460	5,680	286	89	32	123	19
13	22	39	30	40	22	432	6,420	256	89	51	226	18
14	26	39	29	*36	22	446	6,020	230	116	29	45	17
15	24	39	27	30	23	661	2,540	203	101	21	23	15
16	37	39	25	25	25	1,240	1,730	181	82	20	21	14
17	45	39	*23	23	27	2,820	1,480	162	71	18	19	13
18	42	37	22	22	30	2,820	1,090	208	65	18	26	11
19	51	36	21	21	36	1,680	756	379	58	20	21	7.7
20	53	36	21	21	33	815	572	221	53	19	17	8.2
21	44	36	22	21	35	506	460	194	45	16	16	15
22	39	37	24	23	70	418	432	194	45	16	14	9.0
23	36	37	30	26	292	548	506	a180	148	16	35	8.2
24	36	35	25	27	680	1,730	775	a170	274	14	52	7.7
25	36	34	25	27	*699	1,880	1,110	a160	607	12	42	13
26	39	33	26	30	378	1,110	915	a150	328	13	79	14
27	40	31	29	39	339	1,240	589	a150	168	17	93	16
28	39	30	31	45	353	2,640	446	a200	103	17	59	19
29	39	29	29	51	288	2,100	340	a150	77	16	42	22
30	36	29	26	49	-	1,730	270	a100	64	13	32	22
31	35	-	26	51	-	1,340	-	a90	-	12	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	988	53	21	31.9	0.041	0.05
November	1,132	44	29	37.7	.049	.05
December	884	37	21	28.5	.037	.04
Calendar year 1943	223,955	6,320	21	614	.791	10.72
January	1,171	90	21	37.8	.049	.06
February	3,758	699	22	130	.168	.18
March	35,758	2,820	104	1,153	1.49	1.72
April	38,961	6,420	256	1,299	1.67	1.86
May	8,855	950	90	286	.369	.43
June	6,925	1,000	45	231	.298	.33
July	736	55	12	23.7	.031	.04
August	1,153.0	226	9.0	37.2	.048	.06
September	609.8	77	7.7	20.3	.026	.03
Water year 1943-44	100,930.8	6,420	7.7	276	.356	4.85

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for stations near Bucyrus, Upper Sandusky, and Fremont.
Note.- Stage-discharge relation affected by ice Dec. 14-24, Jan. 4-19, Feb. 11-16.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Sandusky River near Fremont, Ohio

Location.- Water-stage recorder, lat. 41°18'28", long. 83°09'32", in sec. 17, T. 4 N., R. 15 E., at highway bridge, 2⅝ miles downstream from Wolf Creek and 3⅝ miles southwest of Fremont. Datum of gage is 626.3 feet above mean sea level, adjustment of 1912.

Drainage area.- 1,248 square miles.

Records available.- November 1923 to December 1935, July 1938 to September 1944. November 1898 to March 1901 at site 4 miles downstream.

Average discharge.- 18 years (1923-35, 1938-44), 834 second-feet.

Extremes.- Maximum discharge during year, 13,200 second-feet Apr. 12 (gage height, 6.8 feet); 11 second-feet Sept. 27, 28 (gage height, 0.89 foot).
1923-35, 1938-44: Maximum discharge (not determined) occurred Jan. 15, 1930 (gage height, 11.1 feet); maximum gage height, 11.4 feet Mar. 3, 1940 (ice jam); minimum discharge, 5.0 second-feet Sept. 27, 28, 1941 (gage height, 0.80 foot).

Remarks.- Records good except those for periods of ice effect, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	61	71	45	80	405	1,500	405	137	94	19	40
2	40	74	64	45	97	304	1,100	364	156	84	20	40
3	34	84	67	45	77	240	840	330	1,130	74	22	32
4	32	80	67	50	71	246	676	304	1,530	71	19	24
5	30	67	71	50	71	266	556	357	1,110	58	19	19
6	32	71	64	50	74	408	488	890	734	49	19	24
7	32	71	80	60	67	3,190	435	3,350	605	43	19	24
8	30	84	80	80	60	3,850	420	1,060	391	43	19	20
9	30	94	87	150	50	2,890	412	792	259	40	20	43
10	32	90	77	140	45	1,500	963	1,220	189	34	20	49
11	32	84	65	110	40	900	4,810	900	153	37	20	43
12	28	77	55	90	40	768	11,900	605	132	40	22	28
13	28	80	55	*75	40	864	9,370	472	127	46	516	34
14	30	84	50	65	40	864	8,120	391	159	55	272	28
15	32	71	45	60	40	1,780	4,470	330	183	61	94	24
16	43	67	*44	55	45	2,360	3,600	324	147	43	67	24
17	67	74	40	50	50	5,060	2,620	292	127	34	43	24
18	71	67	37	50	60	4,390	1,840	292	102	30	34	19
19	67	74	35	45	70	2,850	1,250	465	90	34	32	14
20	55	71	35	45	75	1,380	962	420	84	34	34	15
21	61	71	35	40	100	864	768	357	77	30	30	17
22	61	61	40	40	250	676	655	318	74	28	28	15
23	55	74	45	45	925	974	768	285	524	24	30	14
24	55	71	40	50	1,000	2,920	1,150	278	975	20	87	14
25	49	67	40	60	*1,140	2,890	1,410	246	828	22	107	15
26	67	64	45	70	864	1,880	1,340	207	792	24	74	14
27	80	71	50	80	722	1,360	1,000	201	420	24	67	12
28	71	74	50	84	585	3,380	722	378	259	26	87	15
29	67	64	50	87	540	3,220	565	435	165	22	71	26
30	61	67	45	84	-	*2,870	458	233	117	20	52	28
31	61	-	45	87	-	2,070	-	177	-	19	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,473	80	28	47.5	0.038	0.04
November	2,209	94	61	73.6	.059	.07
December	1,674	87	35	54.0	.043	.05
Calendar year 1943	390,522	12,600	28	1,070	.857	11.65
January	2,087	150	40	67.3	.054	.06
February	7,318	1,140	40	252	.202	.22
March	57,619	5,060	240	1,859	1.49	1.72
April	65,168	11,900	412	2,172	1.74	1.94
May	16,678	3,350	177	538	.431	.50
June	11,776	1,530	74	393	.315	.35
July	1,263	94	19	40.7	.033	.04
August	2,003	516	19	64.6	.052	.06
September	738	49	12	24.6	.020	.02
Water year 1943-44	170,006	11,900	12	464	.372	5.07

Peak discharge.- Mar. 7 (8 p.m.) 4,660 sec.-ft.; Mar. 17 (12 m.) 5,480 sec.-ft.; Apr. 12 (8 a.m.) 13,200 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 27, Feb. 8-22, Mar. 10, 11.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Rocky River near Berea, Ohio

Location.- Water-stage recorder, lat. 41°24'22", long. 81°53'13", in T. 6 N., R. 15 W., at highway bridge just below junction of East and West Branches and 3 miles northwest of Berea, Cuyhoga County. Datum of gage is 649.9 feet above mean sea level, datum of 1929 (Cuyhoga County bench mark).
Drainage area.- 269 square miles.
Records available.- November 1923 to September 1935, September 1943 to September 1944.
Average discharge.- 13 years, 248 second-feet.
Extremes.- Maximum discharge Sept. 16, 1943, to Sept. 30, 1944, 7,840 second-feet Apr. 12 (gage height, 7.24 feet); minimum, 2.1 second-feet Aug. 19 (gage height, 1.08 feet).
1923-35, 1943-44: Maximum discharge observed, 14,400 second-feet Aug. 7, 1935, from rating curve extended above 5,800 second-feet; maximum stage observed, 18.6 feet June 29, 1924 (backwater caused by tornado); minimum discharge, 0.2 second-foot Sept..2, 1932, Aug. 18, 19, 22, 27, 28, 30, 31, 1933.
Maximum stage known, 20.9 feet in March 1913.
Remarks.- Records fair except those for periods of ice effect, which are poor.

Discharge, in second-feet, 1943-44

1943

Date	Discharge	Date	Discharge	Date	Discharge
Sept. 16	21	Sept. 21	12	Sept. 26	7.9
17	15	22	11	27	7.9
18	17	23	9.0	28	7.9
19	18	24	8.4	29	7.3
20	16	25	9.6	30	7.3
				31	-

Note.- Mean discharge Sept. 16-30, 11.7 sec.-ft.

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	30	21	80	96	146	212	81	53	7.3	3.7	9.0
2	5.7	27	23	69	78	112	191	71	194	6.5	3.1	5.3
3	5.3	26	22	64	71	110	162	67	439	5.7	3.1	4.5
4	4.9	23	21	84	*62	118	135	56	205	4.9	3.3	43
5	4.9	22	21	100	69	135	132	81	237	4.5	8.4	238
6	4.9	20	24	*120	96	311	158	502	94	3.7	5.9	115
7	4.5	19	49	250	91	*4,240	245	325	44	3.3	3.1	53
8	4.5	21	76	150	60	741	264	181	29	3.1	3.3	34
9	a4.5	27	*64	90	50	264	279	132	22	2.8	4.5	19
10	a4.5	37	47	60	45	178	1,410	216	22	2.6	6.5	15
11	4.5	41	35	45	40	138	3,610	275	21	3.8	6.5	11
12	5.3	41	27	35	45	152	4,930	165	22	12	5.3	10
13	4.9	47	21	30	43	302	1,070	115	23	7.9	4.5	9.6
14	5.3	53	18	27	41	238	444	96	26	4.5	4.1	7.3
15	7.3	69	17	25	40	252	374	74	21	4.5	3.7	7.3
16	21	168	16	23	40	1,100	635	64	18	4.9	3.3	5.7
17	37	184	15	22	45	2,190	416	71	17	4.9	10	4.9
18	44	118	15	21	*48	585	286	68	16	4.5	5.8	4.5
19	44	88	17	20	50	286	208	84	12	4.9	2.6	4.1
20	47	88	18	20	50	168	168	46	15	4.5	2.4	5.7
21	36	81	18	21	60	155	143	108	14	14	2.6	5.3
22	30	56	18	22	300	158	129	353	13	9.0	3.1	3.7
23	27	44	16	25	3,200	700	155	181	47	7.3	3.1	3.3
24	24	36	15	27	977	1,530	990	1,660	51	6.1	3.3	5.3
25	22	30	15	30	502	421	598	1,900	34	5.7	12	5.7
26	26	28	20	35	558	283	302	697	21	4.9	18	4.9
27	67	29	50	50	907	325	202	365	17	4.9	12	4.1
28	91	27	100	300	365	357	158	191	14	4.5	14	6.5
29	64	24	175	394	230	230	118	112	10	4.1	7.3	6.5
30	44	24	130	212	-	279	94	76	7.9	4.1	9.0	4.5
31	32	-	100	138	-	264	-	58	-	3.7	9.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	733.5	91	4.5	23.7	0.088	0.10
November	1,528	184	19	50.9	.189	.21
December	1,224	175	15	39.5	.147	.17
Calendar year	-	-	-	-	-	-
January	2,589	394	20	83.5	.310	.36
February	8,259	3,200	40	285	1.06	1.14
March	16,468	4,240	110	531	1.97	2.27
April	18,218	4,930	94	607	2.23	2.52
May	8,471	1,900	46	273	1.01	1.16
June	1,758.9	439	7.9	58.6	.218	.24
July	169.1	14	2.6	5.45	.020	.02
August	186.5	18	2.4	6.02	.022	.03
September	655.7	238	3.3	21.9	.031	.09
Water year 1943-44	60,260.7	4,930	2.4	165	.613	8.31

Peak discharge.- Feb. 23 (8 a.m.) 4,050 sec.-ft.; Mar. 7 (7 a.m.) 5,490 sec.-ft.; Mar. 17 (4 a.m.) 3,290 sec.-ft.; Apr. 12 (3 a.m.) 7,480 sec.-ft.; May 24 (10 a.m.) 2,840 sec.-ft.; May 25 (10 a.m.) 3,290 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 1, Jan. 5-28, Feb. 8-22.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cuyahoga River at Old Portage, Ohio

Location.- Water-stage recorder, lat. 41°08'04", long. 81°32'49", at Old Portage, Summit County, at highway bridge 1¼ miles downstream from Little Cuyahoga River and 4 miles northwest of Akron.

Drainage area.- 405 square miles.

Records available.- September 1921 to December 1935, March 1939 to September 1944.

Average discharge.- 19 years, 419 second-feet.

Extremes.- Maximum discharge during year, 2,680 second-feet Apr. 12 (gage height, 7.92 feet); minimum, 14 second-feet Aug. 27 (gage height, 0.47 foot).
1921-35, 1939-44: Maximum discharge, 3,820 second-feet Apr. 5, 1929 (gage height, 10.1 feet); minimum, that of Aug. 27, 1944.

Remarks.- Records good except those above 1,800 second-feet, which are fair. Diurnal fluctuation caused by power plants above station. Flow regulated by Lake Rockwell, about 16 miles above gage, where an average of 50 second-feet was diverted for municipal supply of city of Akron. Sewage from city enters river below station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-11, Feb. 29 to Apr. 11, June 17 to Sept. 30)

0.3	24	0.8	70	3.0	706
.4	29	1.2	142	4.0	1,060
.5	36	1.5	212	5.0	1,420
.6	45	1.8	296	6.0	1,810
.7	56	2.2	427	7.2	2,350

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	167	154	48	426	988	466	317	360	92	78	90
2	51	135	129	45	330	766	428	302	314	64	70	29
3	64	131	129	48	300	626	401	210	332	41	47	51
4	99	133	91	88	277	523	353	199	407	41	69	291
5	96	128	113	145	234	428	365	213	407	91	237	272
6	100	93	145	169	123	512	340	269	332	80	116	123
7	96	116	146	170	174	1,120	340	249	302	108	83	94
8	94	186	127	115	229	944	334	255	284	49	76	80
9	51	155	121	121	144	766	380	246	201	38	96	71
10	89	150	118	160	113	750	379	276	183	70	93	30
11	110	137	115	117	134	766	1,180	229	156	88	70	75
12	112	138	104	116	75	720	2,320	379	160	201	33	53
13	146	109	146	108	108	720	2,300	319	137	141	29	87
14	108	112	109	107	138	703	2,120	298	161	91	34	75
15	120	172	98	89	121	750	1,940	298	208	42	83	80
16	144	165	106	92	75	872	1,600	280	159	55	75	67
17	161	148	98	124	160	1,070	1,200	209	81	84	146	35
18	164	150	75	97	156	989	952	208	67	75	74	78
19	179	138	90	95	96	910	776	179	136	174	71	63
20	169	99	139	70	121	872	636	192	108	50	31	42
21	265	115	100	43	189	735	548	219	115	84	73	56
22	148	142	118	60	171	627	461	250	118	91	83	74
23	114	128	90	44	408	728	451	300	169	66	370	44
24	307	130	56	85	464	1,030	478	602	112	66	199	40
25	222	108	39	94	674	836	461	878	72	56	104	58
26	199	116	46	86	988	801	458	776	138	32	60	69
27	174	135	89	97	1,310	836	458	1,060	107	69	27	82
28	147	113	118	114	1,310	735	444	952	91	88	94	69
29	137	170	96	110	1,150	627	412	741	55	78	81	69
30	115	104	85	137	-	551	349	548	106	36	68	74
31	115	-	83	336	-	508	-	478	-	60	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,170	307	51	135		
November	4,023	186	93	134		
December	3,273	154	39	106		
Calendar year 1943	162,380	2,990	39	445		
January	3,330	336	43	107		
February	10,198	1,310	75	352		
March	23,809	1,120	428	768		
April	23,330	2,320	334	778		
May	11,931	1,060	179	385		
June	5,584	407	55	186		
July	2,401	201	32	77.5		
August	2,898	370	27	93.5		
September	2,421	291	29	80.7		
Water year 1943-44	97,368	2,320	27	266		

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cuyahoga River at Independence, Ohio

Location.--Water-stage recorder, lat. 41°23'44", long. 81°37'54", in T. 6 N., R. 12 W., at highway bridge 1 mile northeast of Independence. Datum of gage is 584.14 feet above mean sea level (levels by city of Cleveland).

Drainage area.- 709 square miles.

Records available.- September 1903 to July 1906, September 1921 to May 1923, September 1927 to December 1935, March 1940 to September 1944.

Average discharge.- 13 years (1921-22, 1927-35, 1940-44), 658 second-feet.

Extremes.- Maximum discharge during year, 7,680 second-feet Apr. 11 (gage height, 15.5 feet); minimum, 47 second-feet Aug. 15 (gage height, 2.30 feet).

1921-23, 1927-35, 1940-44: Maximum discharge, 10,800 second-feet Jan. 19, 1929 (gage height, 18.9 feet); minimum, 14 second-feet Nov. 30, 1930; minimum combined discharge of river and canal, 48 second-feet Aug. 29, 1933.

Remarks.- Records good except those for Apr. 18-30, which are fair. Diurnal fluctuation caused by power plants above station. A small amount of water from Tuscarawas River is diverted into this basin at Portage Lakes. Water diverted into Ohio Canal at Brecksville 6 miles above station, bypasses station; measurements of canal during water year 1943-44 are as follows.

Date	Second-feet	Date	Second-feet	Date	Second-feet
Oct. 12	58.4	Feb. 4	47.5	June 1	47.8
Nov. 5	52.6	Mar. 8	46.8	July 1	49.1
Dec. 9	62.9	30	46.4	Aug. 2	55.5
Jan. 5	60.8	May 2	53.1	31	61.1

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 21 to Dec. 8, Sept. 9-30)

Oct. 1 to Dec. 8

2.7	92	3.3	223
2.8	109	3.6	316
2.9	130	4.0	469
3.0	152	4.5	680

Dec. 9 to Sept. 30

2.4	57	3.8	403	11.0	4,220
2.6	83	4.4	650	12.0	4,870
2.8	120	5.0	920	13.5	6,000
3.0	166	7.0	1,910		
3.5	304	9.0	3,000		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	200	190	156	577	1,510	898	519	586	152	97	188
2	127	234	233	106	470	1,210	830	500	533	135	132	121
3	94	205	211	110	451	988	718	420	620	88	102	73
4	104	209	211	185	436	852	650	335	533	75	86	120
5	148	206	172	188	431	695	628	378	544	70	133	721
6	145	202	202	372	387	951	650	762	463	124	438	229
7	145	175	339	323	289	4,620	695	584	403	105	118	185
8	143	215	276	246	343	2,280	762	493	384	138	125	146
9	134	285	258	217	271	1,510	762	455	297	79	111	130
10	90	248	241	210	235	1,180	1,780	714	286	63	114	117
11	129	240	221	214	215	1,140	4,210	684	246	101	114	72
12	156	265	206	193	228	1,240	5,840	607	208	129	98	122
13	156	273	184	180	192	1,510	4,480	561	224	238	69	115
14	190	237	219	173	265	1,240	3,420	512	215	164	56	135
15	161	258	193	173	254	1,260	2,940	428	256	134	69	120
16	295	563	180	153	209	2,140	2,670	446	228	82	103	128
17	274	395	194	154	195	2,890	2,060	360	198	81	121	112
18	265	304	173	182	309	2,010	1,610	343	124	124	179	73
19	361	344	152	153	259	1,510	1,310	301	120	191	90	118
20	275	304	172	163	239	1,360	1,080	271	178	157	101	108
21	307	244	209	140	253	1,240	920	341	162	116	58	97
22	261	225	178	120	1,270	1,040	808	466	172	137	124	95
23	227	254	185	143	3,340	2,100	852	454	296	129	124	144
24	271	223	168	120	1,660	2,720	1,460	2,770	231	92	545	71
25	322	211	138	166	1,460	1,910	1,180	3,300	167	112	184	65
26	383	198	88	190	2,060	1,460	942	2,010	123	94	145	99
27	342	216	236	241	2,450	1,460	852	1,610	175	80	101	110
28	295	213	299	1,260	2,180	1,310	740	1,610	154	107	84	126
29	254	192	225	734	1,810	1,110	695	1,110	134	146	145	169
30	238	232	192	507	-	1,180	565	830	97	103	123	148
31	190	-	170	463	-	1,010	-	672	-	67	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,607	383	90	213		
November	7,570	563	175	252		
December	6,315	339	88	204		
Calendar year 1943	308,795	5,760	88	846		
January	7,935	1,260	106	256		
February	22,738	3,340	192	784		
March	48,636	4,620	695	1,569		
April	47,007	5,840	565	1,567		
May	24,846	3,300	271	801		
June	8,357	620	97	279		
July	3,663	288	63	118		
August	4,199	545	56	135		
September	4,255	721	65	142		
Water year 1943-44	192,128	5,840	56	525		

Peak discharge.- Feb. 23 (5 a.m.) 4,610 sec.-ft.; Mar. 7 (7:30 a.m.) 6,000 sec.-ft.; Mar. 23 (9:30 p.m.) 4,160 sec.-ft.; Apr. 11 (11 p.m.) 7,680 sec.-ft.; May 24 (7:30 p.m.) 4,160 sec.-ft., May 25 (10:30 a.m.) 4,480 sec.-ft.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Chagrin River at Willoughby, Ohio

Location.- Water-stage recorder, lat. 41°37'51", long. 81°24'13", at city waterworks, 800 feet downstream from East Branch, 1 mile southeast of Willoughby, Lake County, and 5 miles upstream from mouth.
Drainage area.- 251 square miles.
Records available.- July 1925 to November 1935, October 1939 to September 1944.
Average discharge.- 15 years, 284 second-feet (not including diversion).
Extremes.- Maximum discharge during year, 7,900 second-feet Apr. 11 (gage height, 10.5 feet); minimum, 0.5 second-feet (regulated) Aug. 14 (gage height, 1.42 feet); minimum daily, 15 second-feet Sept. 26.
1925-35, 1940-44: Maximum discharge, 20,500 second-feet June 26, 1931 (gage height, 9.90 feet, site and datum then in use); minimum daily, 3.0 second-feet July 25, 26, 1934.
Flood of Mar. 23, 1913, reached a stage of 17.3 feet, present datum, from floodmarks.
Remarks.- Records good except those for periods of ice effect, which are poor. Water diverted at dam just above station for municipal supply of city of Willoughby.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-16, June 9 to July 26, Sept. 9-30)

Oct. 1 to Jan. 27

1.7	24	2.8	314
1.9	53	3.1	452
2.2	116	3.4	612
2.5	203		

Jan. 28 to Sept. 30

1.6	11.3	2.5	190	5.0	1,730
1.7	22.5	2.8	300	6.0	2,620
1.8	36	3.1	422	7.0	3,610
2.0	70	3.5	625	8.0	4,700
2.2	114	4.0	950		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	73	71	120	183	289	319	146	135	28	16	32
2	28	73	69	100	143	211	388	157	107	24	18	32
3	28	73	71	95	*174	208	293	137	176	24	18	26
4	28	86	69	90	148	214	254	122	151	22	18	22
5	32	92	67	*95	162	244	247	132	100	21	78	29
6	30	92	77	140	220	390	254	315	76	19	98	35
7	30	77	213	150	174	2,830	308	308	66	18	57	52
8	27	86	*166	130	140	*928	698	214	63	20	39	33
9	27	163	135	110	120	350	454	198	61	21	30	26
10	28	140	111	90	100	270	1,610	673	70	21	25	24
11	25	130	86	80	90	270	3,710	405	68	20	21	22
12	27	146	70	70	85	954	4,370	257	59	26	20	21
13	27	143	60	65	80	1,280	1,450	195	53	64	20	25
14	25	138	55	60	75	570	715	162	52	50	18	26
15	31	140	50	55	75	478	565	135	52	33	20	25
16	82	306	47	52	80	1,170	824	119	47	26	28	22
17	230	244	45	50	90	1,880	512	124	42	24	18	34
18	248	181	45	47	*110	824	363	109	38	21	44	18
19	290	210	50	45	130	431	289	96	36	19	44	16
20	169	237	55	45	120	308	240	85	45	21	30	16
21	114	178	55	50	130	278	220	123	45	29	22	18
22	90	149	50	55	600	240	204	358	44	29	23	18
23	169	121	45	60	4,390	906	227	250	64	24	25	18
24	116	104	40	65	1,530	1,350	603	993	89	20	26	18
25	90	92	40	70	985	570	538	915	52	20	26	16
26	88	88	50	90	1,430	405	338	418	38	21	24	15
27	124	84	100	200	1,430	422	264	876	33	21	20	17
28	124	82	600	1,300	667	371	211	549	32	22	33	57
29	111	79	314	862	409	289	174	247	29	21	33	48
30	84	73	200	436	-	418	154	165	29	20	26	36
31	73	-	150	278	-	367	-	122	-	18	26	-

Month	Observed				Diversion (mean, second-feet)†	Adjusted for diversion		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	2,622	290	25	84.6	1.66	86.3	0.344	0.40
November	3,880	306	73	129	1.64	131	.522	.58
December	3,256	600	40	105	1.56	107	.426	.49
Calendar year 1943	109,088	4,290	25	299	1.65	301	1.20	16.27
January	5,155	1,300	45	166	1.62	168	.669	.77
February	14,070	4,390	75	485	1.58	487	1.94	2.09
March	19,715	2,830	208	636	1.58	638	2.54	2.93
April	20,786	4,370	154	693	1.58	695	2.77	3.09
May	9,105	993	85	294	1.73	296	1.18	1.36
June	1,952	176	29	65.1	2.07	67.2	.268	.30
July	767	64	18	24.7	2.32	27.0	.108	.12
August	944	98	16	30.5	2.23	32.7	.130	.15
September	797	57	15	26.6	1.79	28.4	.113	.13
Water year 1943-44	83,049	4,390	15	227	1.78	229	.912	12.41

Peak discharge.- Feb. 23 (4 a.m.) 7,480 sec.-ft.; Mar. 7 (4 a.m.) 4,260 sec.-ft.; Mar. 17 (1 a.m.) 2,710 sec.-ft.; Apr. 11 (4 p.m.) 7,900 sec.-ft.; Apr. 12 (6 a.m.) 6,810 sec.-ft.; May 24 (6:30 p.m.) 2,530 sec.-ft.
* Winter discharge measurement made on this day.
† Diversion for municipal supply of city of Willoughby.
Note.- Stage-discharge relation affected by ice, Dec. 12-28, Dec. 30 to Jan. 28, Feb. 9-22, Mar. 9-11.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

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Grand River near North Bristol, Ohio

Location.- Water-stage recorder, lat. 41°24'45", long. 80°54'45", in T. 6 N., R. 5 W., at highway bridge, an eighth of a mile downstream from Center Creek and 2½ miles west of North Bristol, Trumbull County.

Drainage area.- 89.7 square miles.

Records available.- March 1942 to September 1944.

Extremes.- Maximum discharge during year, 2,150 second-feet Apr. 12 (gage height, 12.35 feet); minimum, 1.4 second-feet Sept. 26 (gage height, 2.55 feet).
1942-44: Maximum discharge, 2,500 second-feet June 17, 1943 (gage height, 13.0 feet); minimum, that of Sept. 26, 1944.

Remarks.- Records fair except those affected by ice, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	6.1	7.9	7.9	b40	b65	90	19	14	4.7	3.1	4.2
2	4.0	6.5	8.4	7.0	*b30	b40	75	17	13	4.5	3.6	3.8
3	3.6	6.5	7.5	*6.5	b20	b35	64	16	117	3.6	4.5	3.1
4	3.6	6.7	7.0	14	b18	b30	46	14	88	4.2	5.1	2.6
5	2.8	7.5	6.7	26	b16	b28	38	14	66	3.1	5.1	2.0
6	3.3	7.5	6.7	80	b20	b27	38	32	27	3.0	8.9	3.3
7	3.3	6.5	10	101	b22	837	37	77	15	3.3	12	4.2
8	4.0	7.0	11	64	b19	946	44	59	12	4.0	7.5	3.1
9	3.8	26	7.9	35	b15	434	62	35	9.4	3.1	5.3	2.5
10	3.3	16	7.9	19	b13	*b103	160	72	14	3.0	5.5	2.2
11	3.0	11	8.2	14	b11	b80	554	69	18	2.6	5.5	3.0
12	2.6	9.2	6.3	b10	b10	b150	1,950	34	11	3.5	5.5	3.6
13	3.0	10	5.5	b9	b9	391	1,170	26	8.9	6.2	4.9	3.5
14	3.6	9.7	5.1	b8	b8	219	345	21	8.4	4.5	4.0	4.9
15	4.2	8.7	4.9	b7	b8	134	134	17	18	3.6	4.7	4.5
16	6.7	16	4.2	b6.5	b8	219	259	14	10	5.3	4.9	3.1
17	12	21	4.5	b6	b8	550	181	13	7.9	3.5	3.1	3.5
18	8.7	14	4.9	b5.5	b8	340	101	12	6.7	3.3	4.2	2.5
19	7.9	11	5.1	b5	b8	143	60	11	5.9	3.3	3.5	1.9
20	9.4	11	5.5	b5	b9	68	40	9.2	5.9	4.2	3.6	2.5
21	7.9	10	5.7	b5	b10	58	33	11	5.9	4.2	3.5	2.4
22	6.5	7.7	6.1	b5.5	b50	56	30	117	5.7	3.1	4.7	3.3
23	6.3	8.7	5.5	b6	668	195	36	81	6.7	3.6	3.8	3.8
24	7.5	8.4	5.7	b7	783	*719	142	136	11	3.5	4.9	3.1
25	6.3	7.7	6.5	b7.5	426	368	214	311	7.9	5.8	3.8	2.5
26	7.0	6.5	7.2	b8.5	370	138	89	247	5.1	5.1	3.6	2.1
27	13	7.2	7.0	b10	810	96	54	218	4.7	4.7	3.5	4.5
28	11	7.7	a7.0	167	404	116	36	97	5.3	5.3	2.8	4.7
29	8.2	6.3	a7.0	273	158	79	27	37	4.5	4.2	3.8	12
30	7.5	6.3	a7.0	142	-	113	22	22	4.3	3.3	3.6	7.2
31	6.7	-	7.0	75	-	119	-	16	-	3.3	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	184.9	13	2.6	5.96	0.066	0.08
November	294.4	26	6.1	9.81	.109	.12
December	206.9	11	4.2	6.67	.074	.09
Calendar year 1943	35,828.6	2,000	2.6	98.2	1.09	14.86
January	1,142.9	273	5	36.9	.411	.47
February	3,979	810	8	137	1.53	1.65
March	6,896	946	27	222	2.47	2.85
April	6,131	1,950	22	204	2.27	2.53
May	1,874.2	311	9.2	60.5	.674	.78
June	537.2	117	4.3	17.9	.200	.22
July	122.6	6.2	2.6	3.95	.044	.05
August	145.3	12	2.8	4.69	.052	.06
September	109.6	12	1.9	3.65	.041	.05
Water year 1943-44	21,624.0	1,950	1.9	59.1	.659	8.95

Peak discharge.- Feb. 24 (1 a.m.) 915 sec.-ft.; Feb. 27 (8 a.m.) 915 sec.-ft.; Mar. 7 (10 p.m.) 1,350 sec.-ft.; Mar. 17 (12 m.) 626 sec.-ft.; Mar. 24 (10 a.m.) 815 sec.-ft.; Apr. 12 (7 a.m.) 2,150 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for other stations in basin.

b Stage-discharge relation affected by ice.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Grand River near Rome, Ohio

Location.- Water-stage recorder, lat. 41°36'20", long. 80°53'40", in T. 9 N., R. 4 W., at bridge on U. S. Highway 6, 2¼ miles upstream from Mud Creek and 2½ miles west of Rome, Ashtabula County.

Drainage area.- 276 square miles.

Records available.- March 1942 to September 1944.

Extremes.- Maximum discharge during year, 3,350 second-feet Apr. 13 (gage height, 17.5 feet); minimum, 5.8 second-feet Sept. 8, 23 (gage height, 0.92 foot).
1942-44: Maximum discharge, 4,530 second-feet Dec. 31, 1942 (gage height, 20.0 feet); minimum, that of Sept. 8, 23, 1944.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-18, June 22 to Aug. 7)

1.0	7.2	2.0	37	5.0	233	8.0	600	12.0	1,450
1.1	9.0	2.3	49	5.5	281	9.0	772	14.0	2,040
1.3	13	3.0	85	6.0	340	10.0	972	16.0	2,750
1.5	19	3.5	115	7.0	460	11.0	1,200	17.5	3,350
1.7	25	4.0	149						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	21	22	40	170	792	328	79	50	11	7.4	7.7
2	7.6	19	19	30	*105	424	412	66	45	10	6.4	7.9
3	7.2	18	21	*23	85	224	352	58	250	9.4	6.2	7.7
4	6.7	17	21	23	65	165	238	52	200	9.2	6.7	7.9
5	6.7	19	20	26	50	135	193	47	110	8.8	8.1	7.4
6	6.7	21	*20	40	60	135	173	79	80	8.1	8.1	6.7
7	6.9	22	29	60	75	916	181	173	70	7.9	18	6.5
8	6.4	26	43	80	60	1,320	228	197	60	7.2	35	5.8
9	6.5	45	48	75	50	1,300	281	161	50	6.7	21	6.5
10	6.7	69	41	50	40	*1,300	600	169	40	6.7	14	7.4
11	7.0	66	33	35	35	952	1,440	256	50	7.2	11	7.4
12	7.4	50	26	25	27	772	2,830	233	40	7.4	9.0	6.9
13	7.6	41	23	22	25	1,150	3,310	149	35	7.4	8.5	6.7
14	7.7	37	20	21	24	972	3,030	103	30	8.6	7.9	6.9
15	7.9	36	18	20	23	792	2,120	76	50	11	7.9	7.2
16	11	44	16	18	22	812	1,280	60	40	9.6	7.6	7.6
17	21	65	15	16	22	1,300	772	50	30	7.9	8.8	7.7
18	37	74	15	15	24	1,180	556	45	22	7.4	23	7.9
19	46	64	16	15	27	932	388	39	20	7.7	13	7.4
20	47	57	16	15	30	585	242	82	18	6.9	8.3	7.2
21	38	51	16	16	35	316	161	76	17	7.2	7.2	7.0
22	27	42	15	17	45	202	124	84	18	7.7	6.7	6.5
23	23	35	14	19	1,300	290	118	438	19	8.3	6.9	5.8
24	20	30	13	22	1,800	892	270	956	25	7.7	7.4	6.0
25	19	26	13	23	1,800	932	556	1,620	21	7.2	8.3	6.4
26	19	25	14	25	1,890	892	514	1,900	17	7.2	8.3	7.2
27	21	23	20	30	2,010	666	370	1,600	15	8.1	8.1	7.4
28	25	23	75	230	1,530	436	220	1,200	13	8.8	7.4	13
29	32	22	105	500	1,180	316	142	500	12	8.3	7.2	11
30	31	22	85	450	-	316	103	200	11	7.9	7.2	13
31	25	-	60	280	-	340	-	90	-	7.9	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	548.2	47	6.4	17.7	0.064	0.07
November	1,109	74	17	37.0	.134	.15
December	912	105	13	29.4	.107	.12
Calendar year 1943	117,806.4	3,640	6.4	323	1.17	15.87
January	2,261	500	15	72.9	.264	.30
February	12,609	2,010	22	435	1.58	1.70
March	21,756	1,320	135	702	2.54	2.93
April	21,532	3,310	103	718	2.60	2.90
May	10,838	1,900	39	350	1.27	1.46
June	1,458	250	11	48.6	.176	.20
July	252.4	11	6.7	8.14	.029	.03
August	317.8	35	6.2	10.3	.037	.04
September	227.7	13	5.8	7.59	.028	.03
Water year 1943-44	73,821.1	3,310	5.8	202	.732	9.93

* Winter discharge measurement made on this day.

Note.- No gage-height record Dec. 15-21, May 26 to June 21, June 24, 26-28; discharge computed on basis of recorded range in stage, several gage readings made by observer, and records for station near North Bristol. Stage-discharge relation affected by ice Dec. 14, Dec. 22 to Feb. 23.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Grand River near Madison, Ohio

Location.- Water-stage recorder, lat. 41°44'26", long. 81°02'48", at highway bridge, half a mile upstream from Griswold Creek and 2 miles south of Madison, Lake County. Datum of gage is 674.47 feet above mean sea level, adjustment of 1912.

Drainage area.- 587 square miles.

Records available.- July 1922 to December 1935, February 1938 to September 1944.

Average discharge.- 19 years, 620 second-feet.

Extremes.- Maximum discharge during year, 10,200 second-feet Apr. 12 (gage height, 10.2 feet); minimum, 1.4 second-feet July 7 (gage height, 0.56 foot).
1922-35, 1938-44: Maximum discharge, 16,400 second-feet Jan. 19, 1929 (gage height, 12.0 feet); practically no flow July 31, Aug. 1-2, 1934.

Remarks.- Records good except those for periods of ice effect, which are poor.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 2 to July 9, Sept. 11-30)

Oct. 1 to Apr. 13

0.8	4.2	2.0	147	5.0	1,610
.9	7.6	2.3	216	6.0	2,590
1.0	12.8	2.6	300	7.0	3,850
1.2	28	3.0	434	8.0	5,430
1.4	51	3.5	650	9.0	7,280
1.7	93	4.0	930	10.0	9,650

Apr. 14 to Sept. 30

0.55	1.4	1.5	55
.65	2.7	1.8	98
.8	5.9	2.2	183
1.0	13.6	2.6	300
1.2	26		

Note.- Same as preceding table above 2.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.
1	8.6	46	46	140	446	1,280	700	213	278	16	6.5	9.1
2	8.1	39	45	90	300	810	960	173	160	15	5.9	7.7
3	7.6	33	41	65	*251	487	900	149	114	15	5.9	7.0
4	6.5	33	39	50	198	363	582	130	79	7.4	5.6	7.0
5	4.8	30	39	*55	158	274	434	122	82	2.3	8.7	6.7
6	4.5	28	40	72	177	348	397	199	136	1.5	8.4	6.7
7	4.2	28	65	98	196	2,590	408	462	236	1.6	7.7	10
8	4.0	55	*100	128	160	3,420	801	491	224	6.5	7.3	8.4
9	4.0	105	128	138	130	*1,910	1,220	397	118	6.5	23	7.7
10	3.7	155	119	110	100	1,570	2,100	628	84	7.3	28	5.9
11	4.2	170	88	90	85	1,320	4,700	782	51	6.5	21	5.4
12	12	158	72	70	75	1,530	9,400	551	54	12	15	4.6
13	10	130	60	55	70	2,700	7,920	394	56	16	11	5.4
14	7.6	108	50	45	65	1,960	5,090	284	55	12	8.7	5.9
15	6.5	96	40	35	60	1,460	3,630	216	44	9.1	11	5.9
16	9.5	138	35	32	58	2,060	2,700	173	41	7.7	10	5.6
17	27	224	30	30	*59	4,000	1,770	149	38	10	7.3	5.4
18	67	251	27	29	60	2,930	1,110	126	34	9.6	9.6	5.1
19	96	300	30	28	65	1,650	755	107	35	9.1	33	4.9
20	82	291	32	27	70	1,080	508	100	28	9.1	28	5.1
21	74	211	32	32	80	675	363	215	27	11	17	5.4
22	67	155	32	35	100	427	300	1,500	24	10	12	5.1
23	52	119	28	35	3,500	516	294	1,080	26	8.4	9.1	4.9
24	43	93	25	45	5,430	2,200	534	1,820	34	8.0	10	4.9
25	36	77	25	50	3,700	1,960	1,500	2,110	17	7.0	7.0	4.2
26	38	64	30	72	3,850	1,390	1,250	2,260	17	7.3	6.7	3.8
27	52	58	120	120	5,260	1,180	810	2,260	17	7.7	6.7	4.0
28	50	55	400	1,200	3,290	930	512	1,770	17	6.5	9.1	16
29	52	51	470	2,480	1,910	650	360	1,390	17	6.7	10	16
30	55	49	300	1,420	-	628	272	1,020	17	6.7	8.7	17
31	55	-	200	840	-	765	-	538	-	6.7	9.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	951.8	96	3.7	30.7	0.052	0.06
November	3,350	300	28	112	.191	.21
December	2,788	470	25	89.9	.153	.18
Calendar year 1943	242,459.8	6,490	3.7	664	1.13	15.37
January	7,716	2,480	27	249	.424	.49
February	29,903	5,430	58	1,031	1.76	1.90
March	45,053	4,000	274	1,453	2.48	2.86
April	52,280	9,400	272	1,743	2.97	3.31
May	21,809	2,260	100	704	1.20	1.38
June	2,160	278	17	72.0	.123	.14
July	266.2	16	1.5	8.59	.015	.02
August	367.0	33	5.6	11.8	.020	.02
September	210.8	17	3.8	7.03	.012	.01
Water year 1943-44	166,854.8	9,400	1.5	456	.777	10.58

Peak discharge.- Feb. 24 (2 a.m.) 6,300 sec.-ft.; Feb. 27 (11 a.m.) 5,430 sec.-ft.; Mar. 8 (3 a.m.) 4,150 sec.-ft.; Mar. 17 (3 p.m.) 4,450 sec.-ft.; Apr. 12 (3 p.m.) 10,200 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 13-28, 30, 31, Jan. 1-4, 10-18, 27, 28, Feb. 8-23.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Phelps Creek near Windsor, Ohio

Location.- Water-stage recorder, lat. 41°30'55", long. 80°56'05", in T. 8 N., R. 5 W., at bridge on State Highway 534, 1.4 miles south of Windsor, Ashtabula County, and 1½ miles upstream from mouth.

Drainage area.- 26.4 square miles.

Records available.- March 1942 to September 1944.

Extremes.- Maximum discharge during year, 1,600 second-feet Feb. 23 (gage height, 7.88 feet), from rating curve extended above 840 second-feet; minimum daily, 0.4 second-foot in October, July, August; minimum gage height, 0.42 foot Aug. 4.
1942-44: Maximum discharge, that of Feb. 23, 1944; no flow Aug. 20, 21, 1943.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	3.5	2.4	4.9	10	20	35	4.6	5.3	1.1	0.5	0.6
2	.6	1.7	2.8	3.6	*5.7	15	74	4.3	3.9	1.0	.5	.6
3	.7	2.0	2.5	*3.1	5.0	13	31	3.9	3.3	.9	.4	.6
4	.8	2.0	2.4	3.3	5.0	12	24	3.5	2.9	.8	.5	.6
5	.7	3.5	2.5	4.3	8.0	11	25	3.6	2.9	.7	.4	.7
6	.4	3.2	*2.8	6.8	15	20	31	17	2.1	.7	.8	.6
7	.7	2.9	14	8.6	10	453	36	23	1.8	.7	1.8	.7
8	.6	9.1	12	6.8	7.5	130	60	13	1.7	.7	1.4	.7
9	.6	19	7.5	4.3	6.0	33	44	9.6	1.7	.6	.9	.6
10	.5	9.6	4.9	3.1	5.0	*26	260	22	2.0	.6	.7	.6
11	.6	7.5	4.0	2.8	4.0	33	556	22	2.0	.5	.6	.6
12	.6	8.2	3.0	2.5	3.5	265	497	16	1.7	.6	.5	.7
13	.6	7.5	2.5	2.3	3.5	239	116	11	1.4	.6	.5	.6
14	.4	6.8	2.0	2.0	3.5	55	41	6.0	1.4	.6	.4	.6
15	.6	6.4	2.0	2.0	3.5	66	29	3.9	1.3	.6	.4	.6
16	.7	20	2.0	2.0	3.5	221	79	3.8	1.3	.5	.4	.6
17	.8	19	2.0	2.0	4.0	281	41	3.3	1.3	.5	.5	.6
18	14	11	2.0	1.9	4.3	75	23	3.2	1.6	.5	.5	.6
19	16	11	2.0	1.9	4.5	31	15	2.5	1.4	.5	.4	.6
20	6.8	14	2.5	2.0	4.3	19	11	2.3	1.0	.5	.5	.6
21	2.6	9.1	2.5	2.1	5.0	18	9.1	2.9	1.0	.5	.6	.6
22	2.6	6.4	2.0	2.4	10	18	7.9	21	.9	.4	.6	.7
23	2.2	4.3	2.0	3.1	1,080	176	12	56	1.2	.4	.6	.7
24	2.2	3.1	2.0	3.9	673	192	81	359	1.0	.5	.6	.7
25	2.2	3.0	2.0	3.6	280	54	63	190	.8	.5	.5	.7
26	3.5	2.6	3.0	4.6	410	32	28	148	.7	.5	.4	.7
27	9.6	2.9	10	25	223	31	19	170	.6	.4	.4	.6
28	10	2.9	50	415	66	31	13	230	.7	.4	.5	.7
29	7.5	2.9	20	115	30	23	7.9	36	1.0	.4	.5	.6
30	7.5	2.6	13	54	-	46	5.6	15	1.2	.4	.5	.6
31	4.9	-	8.0	20	-	33	-	7.9	-	.5	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	102.2	16	0.4	3.30	0.125	0.14
November	207.7	20	1.7	6.92	.232	.29
December	192.3	50	2.0	6.20	.235	.27
Calendar year 1943	12,272.5	606	0	33.6	1.27	17.27
January	718.9	415	1.9	23.2	.879	1.01
February	2,892.8	1,080	3.5	99.8	3.78	4.08
March	2,672	453	11	86.2	3.27	3.77
April	2,274.5	556	5.6	75.8	2.87	3.20
May	1,414.3	359	2.3	45.6	1.73	1.99
June	51.1	5.3	.6	1.70	.064	.07
July	18.1	1.1	.4	.58	.022	.03
August	18.4	1.8	.4	.59	.022	.03
September	19.0	.7	.6	.63	.024	.03
Water year 1943-44	10,581.3	1,080	.4	28.9	1.09	14.91

Peak discharge.- Jan. 28 (7 a.m.) 845 sec.-ft.; Feb. 23 (7 a.m.) 1,600 sec.-ft.; Feb. 26 (3 p.m.) 749 sec.-ft.; Apr. 11 (4:30 p.m.) 1,300 sec.-ft.; May 24 (10 p.m.) 1,120 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 11-31, Jan. 31 to Feb. 22, Feb. 29 to Mar. 6.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Rock Creek near Rock Creek, Ohio

Location.- Water-stage recorder, lat. 41°39'05", long. 80°50'10", in T. 10 N., R. 4 W., at highway bridge, 0.4 mile downstream from Plum Creek, 1.4 miles southeast of village of Rock Creek, Ashtabula County, 1½ miles downstream from Sugar Creek, and 3 miles upstream from mouth.

Drainage area.- 56.6 square miles.

Records available.- March 1942 to September 1944.

Extremes.- Maximum discharge during year, 2,250 second-feet Apr. 12 (gage height, 5.90 feet); no flow in October, July, August, September.
1942-44: Maximum discharge, 2,930 second-feet May 16, 1942 (gage height, 6.60 feet); no flow at times during 1943 and 1944.

Remarks.- Records good except those for periods of ice effect, which are poor.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 11 to Dec. 28)

0.1	0	0.6	10	1.7	106	3.5	675
.2	.1	.8	20	2.0	148	4.0	945
.3	.9	1.0	33	2.3	201	4.5	1,230
.4	3.3	1.2	50	2.6	281	5.0	1,560
.5	6.5	1.4	71	3.0	430	5.5	1,930

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.0	1.7	7.0	30	50	68	15	13	0.2	0	0
2	0	1.5	1.7	5.0	*25	35	166	13	9.1	.1	0	0
3	0	1.1	1.7	4.0	10	30	88	11	6.9	0	0	0
4	0	1.1	1.5	*3.0	7.0	30	57	9.8	5.9	0	0	0
5	0	1.1	1.5	3.0	9.0	35	51	9.8	4.9	0	0	0
6	0	1.1	2.2	23	15	65	53	33	5.9	0	0	0
7	0	1.1	*8.4	31	25	946	67	80	9.5	0	0	0
8	0	2.8	10	20	20	526	154	46	6.9	0	0	0
9	0	8.0	8.4	13	10	125	120	29	5.2	0	0	0
10	0	8.7	6.2	8.0	7.0	*70	480	59	5.2	0	0	0
11	0	7.6	4.0	5.0	5.0	60	1,060	80	5.9	0	0	0
12	0	6.9	3.0	4.0	4.0	246	1,840	39	6.5	0	0	0
13	0	6.5	2.0	3.0	3.5	364	972	24	5.2	0	0	0
14	0	5.5	1.5	2.5	2.0	146	326	24	3.9	0	0	0
15	0	4.9	1.2	2.0	2.5	129	145	21	3.1	0	0	0
16	0	9.5	1.0	1.9	2.5	357	181	15	2.2	0	0	0
17	0	16	1.0	1.8	2.5	630	139	13	2.0	0	0	0
18	0	13	1.0	1.7	3.0	282	76	9.8	2.0	0	0	0
19	3.6	12	1.0	1.7	4.0	104	46	8.0	1.5	0	0	0
20	5.5	11	1.0	1.7	8.0	50	33	8.0	1.7	0	0	0
21	5.5	7.2	1.0	1.7	15	41	26	8.4	1.5	0	0	0
22	3.3	5.9	1.1	1.7	45	40	24	52	.9	0	0	0
23	3.1	4.6	1.2	1.8	1,160	211	35	199	1.3	0	0	0
24	2.5	3.3	1.5	1.9	630	448	287	408	1.3	0	0	0
25	2.5	3.1	2.0	2.0	364	172	336	444	.6	0	0	0
26	2.5	2.2	3.0	3.5	591	116	114	158	.4	0	0	0
27	3.1	2.5	19	7.5	621	75	62	70	.4	0	0	0
28	3.3	2.2	94	233	245	79	37	56	.5	0	0	0
29	3.6	2.0	43	178	100	53	24	71	.5	0	0	0
30	2.8	1.7	22	84	-	101	19	32	.3	0	0	0
31	2.2	-	12	42	-	79	-	19	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	43.5	5.5	0	1.40	0.025	0.03
November	156.1	16	1.1	5.20	.092	.10
December	259.8	94	1.0	8.38	.148	.17
Calendar year 1943	25,926.7	1,260	0	71.0	1.25	17.01
January	699.4	233	1.7	22.6	.399	.46
February	3,966.0	1,160	2.0	137	2.42	2.61
March	5,695	946	30	184	3.25	3.75
April	7,086	1,840	19	236	4.17	4.65
May	2,064.8	444	8.0	66.6	1.18	1.36
June	114.2	13	.3	3.81	.067	.07
July	.3	.2	0	.01	.00018	.0002
August	0	0	0	0	0	0
September	0	0	0	0	0	0
Water year 1943-44	20,085.1	1,840	0	54.9	.970	13.20

Peak discharge.- Feb. 23 (5 a.m.) 1,600 sec.-ft.; Feb. 26 (5 p.m.) 945 sec.-ft.; Mar. 7 (6 a.m.) 1,140 sec.-ft.; Mar. 17 (5 a.m.) 752 sec.-ft.; Apr. 11 (5 p.m.) 2,170 sec.-ft.; Apr. 12 (1 p.m.) 2,250 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 11-26, Jan. 1-5, 10-27, Feb. 1-21, 29, Mar. 1-6, 9-11.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Mill Creek near Jefferson, Ohio

Location.- Water-stage recorder, lat. 41°45'10", long. 80°48'00", in T. 11 N., R. 3 W., at bridge on State Highway 307, 1¾ miles northwest of Jefferson, Ashtabula County, and 3½ miles downstream from Griggs Creek.

Drainage area.- 78.3 square miles.

Records available.- March 1942 to September 1944.

Extremes.- Maximum discharge during year, 3,140 second-feet Apr. 12 (gage height, 8.0 feet); no flow in October, June, July, August, September.
1942-44: Maximum discharge, 5,900 second-feet May 16, 1942 (gage height, 9.5 feet); no flow at times.

Remarks.- Records fair except those for rapidly rising stages and those for periods of ice effect or no gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	3.7	2.4	20	b50	b50	95	13	5.5	0	a0	0
2	0	3.2	1.9	12	*b40	b40	195	10	3.2	0	a0	0
3	0	2.7	1.6	8.2	b30	b35	119	8.2	2.6	0	0	0
4	0	2.1	1.4	*7.4	b20	b30	69	6.6	2.2	0	0	0
5	0	1.9	1.4	8.5	b23	33	56	7.4	1.4	0	0	0
6	0	1.9	1.5	21	b35	46	54	31	1.3	0	0	0
7	0	1.8	*12	40	b40	850	90	76	1.1	0	0	.3
8	0	3.4	33	35	b25	519	252	64	1.1	0	0	0
9	0	42	27	22	b12	*b130	290	39	1.1	0	0	0
10	0	46	18	12	b8.0	b70	784	117	1.0	0	0	0
11	0	39	8.2	7.8	b5.0	b50	1,420	119	.8	0	0	0
12	0	27	5.3	5.3	b4.0	183	f2,870	58	.8	0	0	0
13	0	20	2.4	4.4	b3.5	476	920	35	.8	0	0	0
14	0	16	2.2	3.4	b3.0	184	190	23	.7	0	0	0
15	0	14	1.4	2.9	b3.0	142	102	19	.6	0	0	0
16	.1	50	1.2	2.7	b3.0	489	170	21	.5	0	0	0
17	.4	83	1.1	2.1	b3.0	1,050	153	19	.4	0	0	0
18	.5	72	1.0	1.8	b3.5	332	83	17	.2	0	0	0
19	.3	104	1.1	1.8	b4.0	a100	48	16	.2	0	0	0
20	.2	76	1.1	2.4	b4.5	a70	31	23	.1	0	0	0
21	.1	45	1.0	2.6	b6.0	a50	23	28	.1	0	0	0
22	.1	27	1.0	3.0	25	a45	21	224	0	0	0	0
23	.2	18	.7	3.9	1,590	96	f35	157	.2	0	0	0
24	.1	11	.7	3.7	978	*564	160	201	.1	0	0	0
25	.1	7.4	.5	3.7	564	224	497	116	.1	0	0	0
26	.1	4.8	.9	8.5	690	110	178	51	0	0	0	0
27	.5	3.9	21	35	922	87	90	31	0	0	0	0
28	3.9	3.7	215	931	293	102	51	46	0	0	0	0
29	11	3.2	b135	639	b110	80	31	35	0	0	0	0
30	8.5	2.9	b70	254	-	88	19	20	0	0	0	0
31	4.4	-	b40	b100	-	121	-	10	-	a0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	30.5	11	0	0.98	0.013	0.01
November	736.6	104	1.8	24.6	.314	.35
December	611.0	215	.5	19.7	.252	.29
Calendar year 1943	34,130.1	2,200	0	93.5	1.19	16.21
January	2,205.1	931	1.8	71.1	.908	1.05
February	5,497.5	1,590	3.0	190	2.43	2.62
March	6,446	1,050	30	208	2.66	3.07
April	9,096	2,870	19	303	3.87	4.32
May	1,641.2	224	6.6	529	.676	.78
June	26.1	5.5	0	.87	.011	.01
July	0	0	0	0	0	0
August	0	0	0	0	0	0
September	.3	.3	0	.01	.00013	.0001
Water year 1943-44	26,290.3	2,870	0	71.8	.917	12.50

Peak discharge.- Jan. 28 (5 p.m.) 1,400 sec.-ft.; Feb. 23 (5 p.m.) 2,510 sec.-ft.; Feb. 27 (4 p.m.) 1,320 sec.-ft.; Mar. 17 (7 a.m.) 1,320 sec.-ft.; Apr. 10 (8 p.m.) 1,280 sec.-ft.; Apr. 12 (12 m.) 3,140 sec.-ft.

* Winter discharge measurement made on this day.
a No gage-height record; discharge based on records for other stations in basin.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Ashtabula River near Ashtabula, Ohio

Location.- Water-stage recorder, lat. 41°51'19", long. 80°45'43", at highway bridge, 1 mile upstream from Hubbard Run, 1¼ miles southeast of Ashtabula, Ashtabula County, and 5½ miles upstream from mouth.

Drainage area.- 118 square miles.

Records available.- July 1924 to December 1935, March 1939 to September 1944.

Average discharge.- 16 years, 139 second-feet.

Extremes.- Maximum discharge during year, 3,700 second-feet Apr. 12; no flow several days in October, July, and September.
1924-35, 1939-44: Maximum discharge, 10,800 second-feet May 16, 1942 (gage height, 9.67 feet); no flow at times during 1925-35, 1939-44.

Remarks.- Records good except for periods of ice effect, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	37	21	50	110	110	148	35	13	0.7	0	0
2	0	26	19	40	96	80	228	30	11	.5	0	0
3	0	19	18	30	*69	70	168	26	13	.2	0	0
4	0	16	15	*23	44	70	92	23	10	.1	0	1.2
5	0	15	14	30	67	80	81	23	7.4	.1	0	6.4
6	0	16	15	25	114	120	83	42	5.7	0	0	2.6
7	0	18	*47	150	103	990	186	182	4.4	0	0	2.1
8	0	34	110	130	86	554	408	148	4.0	0	0	3.1
9	0	277	61	80	50	*223	422	86	3.2	0	0	5.7
10	0	186	46	50	30	117	1,360	367	6.3	0	0	2.9
11	0	124	32	35	23	114	1,750	321	5.7	0	0	1.6
12	0	96	25	25	19	319	3,090	128	4.8	.4	0	1.4
13	0	75	20	20	16	626	1,380	69	4.8	1.6	0	1.4
14	0	64	15	16	15	294	379	44	5.2	1.0	0	1.0
15	0	67	12	14	14	208	204	38	3.6	.5	0	.7
16	1.6	272	10	12	13	692	373	34	2.6	.2	0	.5
17	7.9	284	9	11	*13	1,240	284	42	2.1	.1	0	.4
18	25	186	9	10	15	446	160	38	1.6	.1	0	.2
19	91	310	10	10	17	180	96	29	2.4	.2	0	.1
20	86	289	10	11	20	89	64	42	2.9	.3	0	.1
21	44	156	9	13	30	72	50	83	2.9	2.6	0	0
22	32	92	9	14	100	64	44	1,010	2.4	1.0	0	0
23	34	67	8	16	1,700	143	64	496	3.2	.7	0	0
24	44	48	8	18	1,100	678	266	350	2.6	.4	0	0
25	37	35	8	20	711	305	920	177	2.1	.2	0	0
26	34	30	15	25	939	156	391	81	1.8	.1	0	0
27	105	26	50	100	1,150	132	190	44	1.6	0	0	0
28	160	26	500	1,500	446	190	106	34	1.2	0	0	8.4
29	151	27	371	955	208	120	64	26	1.0	0	0	26
30	144	29	170	421	-	128	44	19	.8	0	0	23
31	67	-	80	190	-	190	-	15	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,063.5	160	0	34.3	0.291	0.34
November	2,947	310	15	98.2	.832	.93
December	1,746	500	8	56.3	.477	.55
Calendar year 1943	53,256.9	2,500	0	146	1.24	16.75
January	4,044	1,500	10	130	1.10	1.27
February	7,318	1,700	13	252	2.14	2.31
March	8,800	1,240	64	284	2.41	2.78
April	13,095	3,090	44	436	3.69	4.12
May	4,082	1,010	15	132	1.12	1.29
June	133.3	13	.8	4.44	.038	.04
July	11.0	2.6	0	.35	.0030	.003
August	0	0	0	0	0	0
September	88.8	26	0	2.96	.025	.03
Water year 1943-44	43,328.6	3,090	0	118	1.00	13.66

Peak discharge.- Feb. 23 (2 p.m.) 3,090 sec.-ft.; Feb. 26 (12 p.m.) 1,780 sec.-ft.; Apr. 10 (7 p.m.) 2,370 sec.-ft.; Apr. 12 (1 a.m.) 3,700 sec.-ft.; Apr. 12 (7 p.m.) 3,380 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 11-28, Dec. 30 to Jan. 28, Feb. 9-23, Mar. 1-6.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cattaraugus Creek at Gowanda, N. Y.

Location.- Water-stage recorder, lat. 42°27'50", long. 78°56'10", at Gowanda, Erie County, 380 feet downstream from highway bridge, 600 feet downstream from powerhouse of Niagara, Lockport, & Ontario Power Co., and 4.2 miles downstream from South Branch.

Drainage area.- 428 square miles.

Records available.- November 1939 to September 1944.

Extremes.- Maximum discharge during year, 19,400 second-feet June 24 (gage height, 10.35 feet), from rating curve extended above 6,500 second-feet by logarithmic plotting; minimum, 16 second-feet (regulated) Oct. 7 (gage height, 1.23 feet); minimum daily, 81 second-feet (regulated) Oct. 7.

1939-44: Maximum discharge, 35,900 second-feet Mar. 17, 1942 (gage height, 13.73 feet), from rating curve extended above 6,500 second-feet by logarithmic plotting; minimum, 6 second-feet (regulated) Aug. 21, 1941 (gage height, 1.01 feet); minimum daily, 53 second-feet Sept. 19, 1941.

Remarks.- Records good except those for periods of ice effect, partially obstructed intake, or fragmentary gage-height record, which are fair. Flow regulated by power plant and several industrial plants upstream. Diurnal fluctuation at low and medium flow.

Rating tables, water year 1943-44, except periods of ice effect and partially obstructed intake (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 24

1.6	69	2.4	355
1.8	118	2.7	520
2.0	182	3.0	720
2.2	261	3.2	880

Note.- Same as following table above 3.2 feet.

June 24 to Sept. 30

1.8	90	2.8	569	4.5	2,400
2.0	155	3.0	715	5.0	3,160
2.2	236	3.2	880	5.5	4,040
2.4	330	3.5	1,160	6.0	5,100
2.6	440	4.0	1,720	7.7	9,540

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	334	389	220	310	720	671	582	445	362	165	130
2	116	342	420	230	290	580	798	532	504	318	163	124
3	112	500	558	230	360	640	624	491	516	300	135	93
4	106	624	489	215	320	520	561	462	357	275	138	194
5	139	522	552	200	300	440	512	491	314	258	141	404
6	118	513	525	230	430	430	506	998	289	247	148	289
7	81	415	1,050	220	330	540	538	4,240	274	235	131	283
8	101	370	718	210	280	450	869	1,630	f263	220	131	221
9	104	689	603	205	250	350	1,100	988	f253	213	135	175
10	103	516	540	200	230	340	5,760	1,380	351	206	123	161
11	94	458	330	200	220	410	3,140	1,090	353	212	119	144
12	106	407	340	190	210	680	7,180	776	280	220	109	134
13	100	412	320	180	200	2,000	3,960	655	246	360	131	131
14	104	422	290	170	220	1,160	2,400	709	266	250	119	139
15	127	463	220	170	215	1,220	1,530	587	334	214	119	141
16	513	525	230	160	*210	6,000	1,390	521	275	193	131	136
17	533	539	240	149	215	*5,800	1,150	581	262	190	131	118
18	436	529	250	156	215	2,160	889	491	248	168	185	115
19	354	991	*260	172	205	1,050	760	427	872	175	148	110
20	442	1,640	270	*201	195	940	670	403	548	185	130	124
21	284	1,040	260	222	210	814	729	370	713	193	120	193
22	229	961	245	230	225	689	1,130	1,600	462	175	119	143
23	234	672	220	270	800	1,090	1,010	2,650	465	165	118	141
24	199	552	200	233	1,350	2,020	1,750	1,090	9,310	159	175	128
25	183	527	220	225	1,220	1,630	1,950	887	3,940	166	146	118
26	180	559	260	620	1,800	1,640	1,850	616	1,320	175	128	115
27	345	654	350	1,850	3,700	1,320	1,310	494	773	224	117	121
28	491	635	490	3,000	2,150	1,140	916	427	559	258	145	327
29	1,800	479	370	2,000	1,160	820	736	379	456	265	184	560
30	706	409	300	1,130	-	756	635	353	394	199	161	273
31	423	-	250	600	-	726	-	333	-	176	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	8,972	1,800	81	289	0.675	0.78
November	17,699	1,640	334	590	1.38	1.54
December	11,760	1,050	200	379	.886	1.02
Calendar year 1943	300,476	6,000	81	823	1.92	26.12
January	14,288	3,000	149	461	1.08	1.24
February	17,820	3,700	195	614	1.43	1.55
March	39,075	6,000	340	1,260	2.94	3.40
April	47,024	7,180	506	1,567	3.66	4.09
May	27,233	4,240	333	878	2.05	2.37
June	25,642	9,310	246	855	2.00	2.23
July	6,953	362	159	224	.523	.60
August	4,273	185	109	138	.322	.37
September	5,485	560	93	183	.428	.48
Water year 1943-44	226,224	9,310	81	618	1.44	19.67

* Winter discharge measurement made on this day.

f Fragmentary gage-height record; discharge computed on basis of partial gage-height record and records for stations on nearby streams.

Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 16, Jan. 26-29, Jan. 31 to Feb. 22. Intake partially obstructed Feb. 23 to Mar. 17; discharge computed on basis of records for stations on nearby streams, gage heights, and weather records.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Buffalo Creek at Gardenville, N. Y.

Location.- Water-stage recorder, lat. 42°51'15", long. 78°45'30", in Gardenville, Erie County, 700 feet downstream from bridge on Union Road, and 2 miles upstream from Cayuga Creek. Datum of gage is 604.04 feet above mean sea level, unadjusted.

Drainage area.- 145 square miles.

Records available.- October 1938 to September 1944.

Extremes.- Maximum discharge during year, 7,950 second-feet June 24 (gage height, 6.74 feet), from rating curve extended above 4,000 second-feet by logarithmic plotting; minimum, 2.6 second-feet (regulated) Oct. 9 (gage height, 0.98 foot).

1938-44: Maximum discharge, 14,000 second-feet Mar. 17, 1942, from rating curve extended above 4,000 second-feet by logarithmic plotting; maximum gage height, 11.90 feet Mar. 9, 1942 (ice jam); minimum discharge, 0.7 second-foot (regulated) Aug. 22, 24, 25, 1941; minimum gage height observed, 0.70 foot Aug. 28, 31, Sept. 3, 1939 (affected by backwater from leaves and debris), Aug. 22, 24, 25, 1941.

Remarks.- Records good except those for periods of ice effect, which are fair. Diurnal fluctuation at low flow caused by mill 3.2 miles above station.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-8		Oct. 9 to Sept. 30							
1.15	11	1.1	8.3	1.5	83	2.2	392	3.5	1,420
1.2	16	1.2	17	1.6	116	2.4	509	4.0	2,040
		1.3	33	1.8	194	2.7	710	4.5	2,800
		1.4	55	2.0	287	3.0	950	5.0	3,700

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	47	68	31	52	174	232	100	47	42	15	16
2	12	51	69	33	48	134	287	93	65	38	14	14
3	12	79	86	33	60	161	161	83	65	31	14	12
4	12	80	75	31	52	116	131	76	62	28	13	15
5	12	72	68	29	48	96	109	75	46	25	13	21
6	12	56	69	35	66	90	106	122	38	23	13	43
7	11	52	204	31	54	106	103	1,080	36	22	13	31
8	11	50	132	29	46	92	173	330	35	21	13	35
9	8.3	85	100	27	42	74	292	190	35	21	13	29
10	11	93	80	27	40	72	2,130	338	150	21	9.0	24
11	11	86	42	25	37	80	654	239	145	21	8.6	20
12	11	80	43	24	35	390	3,670	149	69	20	9.4	18
13	12	93	42	23	40	1,100	1,210	120	45	20	9.7	17
14	13	86	40	22	37	363	666	158	44	29	8.6	16
15	19	77	37	21	35	447	360	109	114	21	8.6	18
16	52	86	38	20	*35	2,540	376	93	69	19	33	18
17	77	103	40	19	35	*1,970	277	106	45	16	34	16
18	96	106	*42	18	35	452	194	90	44	15	21	13
19	81	220	44	19	33	178	153	72	162	15	23	12
20	52	418	46	21	31	205	131	63	128	19	16	11
21	37	186	44	*24	33	180	178	58	184	20	13	13
22	31	182	40	29	37	160	182	621	110	21	11	21
23	27	107	34	33	360	470	176	694	62	16	10	23
24	25	90	31	29	600	788	786	230	2,860	14	15	18
25	24	103	33	31	520	500	455	165	962	15	18	17
26	23	120	35	220	740	503	432	113	236	15	17	15
27	33	143	56	640	1,600	415	292	83	120	15	13	14
28	55	167	86	780	718	333	178	66	77	15	17	20
29	260	85	70	477	312	208	134	55	58	18	23	42
30	124	75	44	242	-	216	113	50	48	22	23	48
31	63	-	35	133	-	226	-	45	-	19	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,238.3	260	8.3	39.9	0.275	0.32
November	3,278	418	47	109	.752	.84
December	1,873	204	31	60.4	.417	.48
Calendar year 1943	74,715.3	2,840	8.3	205	1.41	19.16
January	3,161	780	18	102	.703	.81
February	5,781	1,600	31	199	1.37	1.48
March	12,839	2,540	72	414	2.86	3.29
April	14,341	3,670	103	478	3.30	3.68
May	5,966	1,080	45	189	1.30	1.50
June	6,161	2,860	35	205	1.41	1.58
July	657	42	14	21.2	.146	.17
August	489.9	34	8.6	15.8	.109	.13
September	630	48	11	21.0	.145	.16
Water year 1943-44	56,315.2	3,670	8.3	154	1.06	14.44

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 10 to Jan. 28, Feb. 1-27, Mar. 4-13, 20-22.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cayuga Creek near Lancaster, N. Y.

Location.- Water-stage recorder, lat. 42°53'20", long. 78°38'40", just upstream from low flat-crested dam in Como Lake Park, 700 feet downstream from bridge on Bowen Road, 800 feet downstream from Little Buffalo Creek, and 2 miles southeast of Lancaster, Erie County. Datum of gage is 672.80 feet above mean sea level, unadjusted.

Drainage area.- 93.3 square miles.

Records available.- September 1938 to September 1944.

Extremes.- Maximum discharge during year, 4,440 second-feet Apr. 12 (gage height, 7.51 feet); maximum gage height, 10.76 feet Feb. 27 (ice jam); minimum discharge, 0.9 second-foot Aug. 23; minimum gage height, 2.72 feet July 17.
1938-44: Maximum discharge, 7,480 second-feet Mar. 17, 1942; maximum gage height, 12.36 feet Mar. 9, 1942 (ice jam); practically no flow Aug. 8, 9, 1939, when permanent stop logs were installed in dam.

Remarks.- Records good except those for periods of ice effect or shifting control, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	36	46	15	37	100	170	76	19	19	2.8	3.5
2	3.8	34	57	16	35	78	268	68	22	16	2.8	2.7
3	4.0	39	86	16	42	82	121	59	62	14	2.6	2.1
4	3.6	46	56	15	37	68	101	51	34	14	2.2	6.2
5	3.4	42	55	14	35	54	84	47	18	12	2.1	9.1
6	3.1	35	48	17	46	52	76	89	14	11	2.8	6.1
7	3.0	33	188	16	38	64	76	733	12	10	2.6	5.9
8	2.9	31	102	14	33	54	140	196	12	9.7	1.8	4.6
9	2.8	69	79	13	30	43	191	130	12	9.9	1.6	4.5
10	2.5	64	56	13	28	42	2,030	228	172	9.9	1.4	3.8
11	2.4	61	21	12	26	47	481	136	131	9.7	1.2	3.0
12	2.5	74	23	11	25	270	2,390	95	54	8.3	1.2	3.0
13	2.5	83	22	11	27	600	854	81	27	8.3	1.8	4.1
14	2.6	72	20	10	26	240	450	71	23	7.8	1.4	4.0
15	3.5	74	17	9.6	*25	260	233	56	47	7.2	1.3	3.7
16	36	90	18	9.2	25	1,400	315	54	27	6.3	1.8	3.3
17	42	86	19	8.8	25	*1,210	212	76	18	5.4	2.6	2.8
18	64	77	*20	8.4	25	260	140	52	15	4.4	5.4	2.6
19	63	301	21	8.6	24	118	113	36	130	4.3	2.6	2.2
20	37	313	22	9.0	23	130	95	28	79	6.0	1.8	2.1
21	25	138	21	*9.6	24	116	155	25	146	7.1	1.4	4.0
22	18	165	19	11	26	104	147	183	66	4.9	1.2	4.2
23	14	88	17	15	195	413	135	208	33	4.2	1.3	3.3
24	12	67	15	13	350	542	782	89	1,060	3.7	4.2	2.8
25	10	89	16	13	290	356	349	61	505	4.6	3.3	2.7
26	9.4	107	18	135	420	364	415	42	128	4.3	2.6	2.5
27	25	121	26	390	780	295	238	30	70	5.3	2.0	2.5
28	51	140	36	480	300	222	140	23	42	5.1	3.4	4.9
29	324	57	31	247	150	144	107	20	30	4.9	9.8	10
30	85	49	21	147	-	174	89	18	24	4.0	6.7	6.7
31	45	-	17	62	-	161	-	15	-	3.3	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	905.9	324	2.4	29.2	0.313	0.36
November	2,681	313	31	89.4	.958	1.07
December	1,213	188	15	39.1	.419	.48
Calendar year 1943	48,306.5	1,570	2.4	132	1.41	19.27
January	1,769.2	480	8.4	57.1	.612	.71
February	3,147	780	23	109	1.17	1.25
March	8,063	1,400	42	260	2.79	3.21
April	11,097	2,390	76	370	3.97	4.42
May	3,076	733	15	99.2	1.06	1.23
June	3,032	1,060	12	101	1.08	1.21
July	244.6	19	3.3	7.89	.085	.10
August	84.1	9.8	1.2	2.71	.029	.03
September	122.9	10	2.1	4.10	.044	.05
Water year 1943-44	35,435.7	2,390	1.2	96.8	1.04	14.12

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 15-18, 22-24, Dec. 29 to Jan. 28, Jan. 31 to Mar. 16, Mar. 18-22. Shifting-control method used Nov. 15-19, July 17, 18.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cazenovia Creek at Ebenezer, N. Y.

Location.- Water-stage recorder, lat. 42°49'45", long. 78°46'40", 40 feet upstream from highway bridge on Ridge Road in Ebenezer, Erie County, 4.4 miles upstream from mouth, and 5 miles southeast of Buffalo. Datum of gage is 606.86 feet above mean sea level, unadjusted.

Drainage area.- 136 square miles.

Records available.- June 1940 to September 1944.

Extremes.- Maximum discharge during year, 8,490 second-feet June 24 (gage height, 11.28 feet); minimum, 4.7 second-feet Aug. 23 (gage height, 0.50 foot); minimum gage height, 0.49 foot Oct. 11.

1940-44: Maximum discharge, 11,200 second-feet Mar. 17, 1942 (gage height, 13.11 feet); minimum, 3.7 second-feet Aug. 25, 1941 (gage height, 0.42 foot).

Remarks.- Records good except those for periods of ice effect, which are fair.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-28

0.5	6	1.0	53	1.8	240
.6	11	1.1	69	2.0	302
.7	18	1.2	88	2.1	336
.8	27	1.4	134		
.9	39	1.6	185		

Oct. 29 to Sept. 30

0.5	4.7	1.4	129	3.5	950
.6	10	1.6	182	4.0	1,230
.7	17	1.9	269	5.0	1,890
.8	26	2.2	369	6.0	2,670
1.0	50	2.5	483	6.7	3,280
1.2	84	3.0	703		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	79	90	42	72	171	253	119	60	50	12	14
2	10	145	105	45	68	139	340	107	68	45	12	11
3	11	231	145	45	82	158	182	99	55	40	11	9.2
4	11	275	110	43	72	117	147	88	49	36	9.7	14
5	10	152	117	40	68	100	124	86	44	32	9.7	35
6	9.8	124	110	46	100	96	122	162	38	30	10	35
7	9.5	103	414	42	76	116	129	1,050	35	29	10	28
8	9.2	80	190	39	64	100	266	336	34	27	8.9	32
9	9.0	211	147	36	58	80	329	212	33	26	7.9	26
10	8.0	137	119	36	54	78	2,220	456	128	26	7.1	20
11	7.5	139	60	35	50	88	721	270	98	26	6.3	16
12	7.8	129	64	33	47	400	3,250	174	55	23	7.9	15
13	9.0	147	62	32	54	1,190	1,240	139	41	29	7.6	15
14	8.8	142	58	30	52	451	700	150	51	33	6.6	13
15	13	134	49	29	50	530	380	117	81	24	6.6	13
16	86	152	52	28	*49	*2,430	403	103	52	20	11	12
17	138	160	54	26	47	*2,050	285	115	40	17	7.9	10
18	304	152	*58	25	47	518	199	97	37	16	9.7	9.2
19	213	512	60	28	45	210	166	80	93	16	13	8.7
20	182	693	62	30	43	230	142	73	99	20	9.2	8.1
21	92	308	60	*34	45	200	188	66	187	28	7.1	11
22	58	260	56	38	49	175	196	995	95	21	6.0	20
23	47	158	49	44	400	539	211	756	65	17	6.5	15
24	40	145	44	39	680	854	761	277	3,210	15	17	12
25	37	155	46	41	600	613	537	238	1,360	15	17	10
26	34	188	50	250	860	636	581	150	319	15	14	9.5
27	127	236	74	700	1,700	464	341	103	161	16	9.2	8.9
28	146	236	110	900	738	379	207	80	101	16	12	15
29	1,170	110	90	500	327	236	160	68	75	16	23	131
30	240	97	60	270	-	242	134	61	60	19	24	54
31	115	-	49	125	-	260	-	53	-	16	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,172.1	1,170	7.5	102	0.750	0.87
November	5,790	693	79	193	1.42	1.58
December	2,814	414	44	90.8	.668	.77
Calendar year 1943	82,310.1	2,790	7.5	226	1.66	22.51
January	3,651	900	25	118	.868	1.00
February	6,597	1,700	43	227	1.67	1.80
March	13,850	2,430	78	447	3.29	3.79
April	14,914	3,250	122	497	3.65	4.08
May	6,880	1,050	53	222	1.63	1.88
June	6,824	3,210	33	227	1.67	1.87
July	759	50	15	24.5	.180	.21
August	336.9	24	6.0	10.9	.080	.09
September	630.6	131	8.1	21.0	.154	.17
Water year 1943-44	66,218.6	3,250	6.0	181	1.33	18.11

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 11 to Feb. 27, Mar. 5-12, 19-22.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Little Tonawanda Creek at Linden, N. Y.

Location.- Water-stage recorder and concrete control, lat. 42°52'35", long. 73°09'45", at highway bridge in Linden, Genesee County, and 7 miles upstream from mouth.
Drainage area.- 22.0 square miles.
Records available.- July 1912 to September 1944.
Average discharge.- 31 years (1912-19, 1920-44), 27.1 second-feet.
Extremes.- Maximum discharge during year, 826 second-feet Apr. 12 (gage height. 7.02 feet); minimum, 0.3 second-foot Aug. 16 (gage height, 0.205 foot).
1912-44: Maximum discharge, about 2,400 second-feet Apr. 22, 1916 (gage height, 14.6 feet, from floodmarks), from rating curve extended above 1,500 second-feet by logarithmic plotting; minimum, about 0.1 second-foot Sept. 5-7, 1934, and several times during Aug. 4-28, 1936.
Remarks.- Records good.

Rating table, water year 1943-44, except periods of ice effect and backwater from leaves (gage height, in feet, and discharge, in second-feet)

0.2	0.3	0.8	9.3	2.0	70
.3	.8	.9	12	2.5	113
.4	1.7	1.0	16	3.0	164
.5	3.0	1.1	19	4.0	288
.6	4.7	1.3	28	4.9	421
.7	6.8	1.6	44		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	c0.8	3.5	7.5	4.5	12	39	36	f23	7.5	4.0	0.9	0.5
2	c.8	3.3	8.5	4.6	13	30	38	20	7.7	3.6	.9	.5
3	.8	3.5	9.8	4.6	13	30	29	18	16	3.2	.8	.4
4	.8	4.1	8.0	4.4	12	24	26	16	9.3	2.9	.7	.7
5	.8	4.0	8.0	4.1	f12	19	23	15	7.3	2.7	.7	.8
6	.8	a3.6	7.7	4.7	f38	18	22	50	6.2	2.5	.7	.7
7	.7	a3.5	17	4.3	22	24	21	251	5.6	2.4	.7	.8
8	.7	a3.8	12	4.0	15	20	30	f73	5.4	2.4	.6	.7
9	c.7	5.7	11	3.8	12	17	34	45	5.0	2.3	.6	.6
10	c.6	5.5	9.3	3.6	11	16	236	56	42	2.3	.5	.5
11	.6	5.1	6.6	3.5	9.8	20	a102	41	26	2.2	.5	.5
12	c.6	5.0	7.0	3.3	9.4	91	410	f32	13	2.0	.5	.5
13	c.6	5.4	6.2	3.2	9.2	187	207	34	a8.8	2.0	.5	.7
14	c.6	5.1	6.0	3.2	9.8	*83	136	40	a14	1.8	.4	.8
15	.8	5.3	5.4	3.1	9.0	85	84	27	16	1.5	.4	.7
16	1.6	5.7	5.2	2.9	9.0	314	70	25	9.3	1.4	.4	.6
17	c1.3	5.7	*5.2	2.7	9.2	354	54	29	7.3	1.3	.6	.6
18	1.4	5.8	5.6	2.6	9.3	93	40	21	6.8	1.3	1.0	.5
19	1.3	15	5.8	2.7	9.2	50	34	18	11	1.3	.6	.5
20	1.2	23	5.9	3.4	8.6	40	28	15	8.5	1.5	.5	.5
21	1.1	a14	5.8	4.3	9.3	35	40	13	8.5	1.4	.4	.7
22	1.0	13	5.4	5.4	10	32	36	34	6.7	1.2	.4	.6
23	1.0	9.3	5.2	6.8	42	f101	f40	38	5.9	1.2	.4	.5
24	1.0	8.5	5.0	5.3	66	163	f135	23	15	1.1	.8	.5
25	1.0	9.6	6.0	6.0	54	141	81	18	19	1.2	.5	.5
26	1.2	13	5.6	52	80	120	65	14	11	1.2	.5	.5
27	2.6	12	7.2	86	185	f82	f50	12	7.5	1.2	.4	.5
28	3.1	13	12	85	116	62	36	9.8	5.9	1.2	.7	.8
29	19	8.8	8.5	47	63	44	f30	8.5	5.0	1.0	1.0	1.0
30	7.3	8.0	5.9	29	-	43	26	7.7	4.4	.9	.7	.7
31	4.5	-	5.0	18	-	39	-	6.8	-	.9	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	60.3	19	0.6	1.95	0.089	0.10
November	230.8	23	3.3	7.69	.350	.39
December	229.3	17	5.0	7.40	.336	.39
Calendar year 1943	12,159.2	320	.6	33.3	1.51	20.54
January	418.0	86	2.6	13.5	.614	.71
February	877.8	185	8.6	30.3	1.38	1.48
March	2,396	354	16	77.3	3.51	4.05
April	2,199	410	21	73.3	3.33	3.72
May	1,033.8	251	6.8	33.3	1.51	1.75
June	321.6	42	4.4	10.7	.486	.54
July	57.1	4.0	.9	1.84	.084	.10
August	18.8	1.0	.4	.61	.028	.03
September	18.4	1.0	.4	.61	.028	.03
Water year 1943-44	7,860.9	410	.4	21.5	.977	13.29

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage and reconstructed gage-height graph.
c Backwater from leaves.
f Fragmentary gage-height record; discharge computed on basis of reconstructed gage-height graph.
Note.- Stage-discharge relation affected by ice Dec. 11-18, 22-26, Jan. 7-10, 12-18, 26, Feb. 1, 2, 7-13, 16, 17, 19, 20, 23-27, Mar. 1, 2, 4-6, 8-11, 20, 21. Discharge, July 15-28, ascertained from graph based on tape-gage readings.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Genesee River at Scio, N. Y.

Location.- Water-stage recorder, lat. 42°09'50", long. 77°58'50", at highway bridge, three-quarters of a mile upstream from Scio, Allegany County.
Drainage area.- 309 square miles.
Records available.- June 1916 to September 1944.
Average discharge.- 28 years, 372 second-feet.
Extremes.- Maximum discharge during year, 4,810 second-feet Mar. 17 (gage height, 7.06 feet); minimum, 14 second-feet Aug. 21 (gage height, 0.76 foot, backwater from weeds).
1916-44: Maximum discharge observed, 10,600 second-feet May 22, 1919 (gage height, 10.1 feet, present datum), from rating curve extended above 3,600 second-feet by logarithmic plotting; minimum, 5.8 second-feet Sept. 4, 1939 (gage height, 0.71 foot).
Remarks.- Records good except those for periods of ice effect, backwater from weeds, or doubtful, fragmentary or no gage-height record, which are fair.

Rating table, water year 1943-44, except periods of ice effect or backwater from weeds (gage height, in feet, and discharge, in second-feet)

0.6	12	1.0	58	1.8	234	3.5	1,020
.7	20	1.2	90	2.2	368	4.0	1,380
.8	32	1.4	130	2.6	532	5.0	2,290
.9	44	1.6	178	3.0	730	6.4	3,900

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	a126	168	d75	260	336	480	383	189	298	42	20
2	27	a98	168	d70	225	260	475	350	217	246	38	26
3	32	a101	173	d67	250	278	395	318	221	208	34	23
4	27	a137	158	d64	225	240	357	285	163	183	31	54
5	23	a115	160	62	194	180	318	298	144	160	29	110
6	20	a107	153	64	243	165	308	316	130	144	31	54
7	20	100	205	62	166	200	298	2,620	120	130	30	43
8	20	120	183	58	124	175	478	1,480	111	117	27	37
9	20	579	181	51	108	145	573	996	103	109	25	34
10	19	286	168	51	98	130	1,340	906	162	109	23	32
11	18	234	125	49	86	125	1,380	730	151	132	22	30
12	19	202	129	47	76	245	2,350	592	105	101	23	29
13	20	189	120	46	76	838	1,850	523	94	128	22	49
14	20	178	108	43	84	528	1,160	564	102	94	21	56
15	26	163	98	43	90	560	954	418	139	80	20	68
16	62	186	90	42	90	1,960	836	372	119	72	22	50
17	70	176	96	38	*88	3,800	698	391	117	67	21	41
18	f46	170	96	38	88	1,500	560	312	88	61	23	37
19	f44	226	96	*40	80	*760	438	259	768	58	20	36
20	46	470	94	41	76	640	430	231	484	81	18	44
21	44	350	*88	43	78	560	528	208	422	169	16	60
22	40	412	86	46	82	467	682	388	305	94	16	70
23	38	291	76	49	887	586	841	570	258	70	17	50
24	38	253	68	46	873	1,200	1,120	586	2,650	61	20	43
25	37	246	66	46	761	1,270	918	402	2,200	58	24	40
26	40	237	67	65	885	1,130	814	325	1,140	57	19	38
27	73	246	85	223	954	948	709	285	758	55	17	37
28	260	237	115	1,250	678	831	588	265	564	62	18	64
29	591	200	a100	830	463	657	492	220	450	56	24	96
30	256	178	a90	480	-	607	434	194	354	52	25	68
31	166	-	a82	301	-	555	-	173	-	46	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,128	591	18	68.6	0.222	0.26
November	6,613	579	98	220	.712	.80
December	3,692	205	66	120	.385	.44
Calendar year 1943	161,212	4,930	18	442	1.43	19.39
January	4,430	1,250	38	143	.463	.53
February	8,388	954	76	289	.935	1.01
March	21,876	3,800	125	706	2.28	2.63
April	22,854	2,350	298	762	2.47	2.75
May	15,960	2,620	173	515	1.67	1.92
June	12,828	2,650	88	428	1.39	1.54
July	3,358	298	46	108	.350	.40
August	740	42	16	23.9	.077	.09
September	1,439	110	20	48.0	.155	.17
Water year 1943-44	104,306	3,800	16	285	.922	12.54

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for nearby stations.
d Doubtful gage-height record; discharge computed on basis of gage heights, weather records, and records for nearby stations.
f Fragmentary gage-height record; discharge computed on basis of recorded range in stage, observer's inspection, and records for nearby stations.
Note.- Stage-discharge relation affected by ice Dec. 11, 13-16, 22-24, Feb. 1, 8-22, Mar. 2, 5-12, 19-21 (no gage-height record Feb. 16, 17, doubtful gage height record Feb. 12-15, 18-20, Mar. 11). Backwater from weeds July 29 to Sept. 30.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Genesee River at St. Helena, N. Y.

Location.- Water-stage recorder, lat. 42°37'20", long. 77°59'20", at highway bridge in St. Helena, Wyoming County, 1½ miles downstream from Wolf Creek, and 3 miles east of Castile.
Drainage area.- 1,017 square miles.
Records available.- August 1908 to September 1944.
Average discharge.- 36 years, 1,205 second-feet.
Extremes.- Maximum discharge during year, 15,200 second-feet Mar. 17 (gage height, 9.31 feet, partially obstructed intake); minimum, 66 second-feet Sept. 4 (gage height, 2.23 feet).

1908-44: Maximum discharge, 44,400 second-feet May 17, 1916, from rating curve extended above 29,000 second-feet; maximum gage height, 14.15 feet Feb. 21, 1943 (ice jam); minimum discharge, 18 second-feet Oct. 5, 17, 1913 (gage height, 1.70 feet).
Remarks.- Records good except those for periods of ice effect or partially obstructed intake, which are fair. Some diurnal fluctuation during low flow caused by power plants. Flow slightly regulated by Caneadea Reservoir (capacity, 1,106,000,000 cubic feet).

Rating tables, water year 1943-44, except periods of ice effect or partially obstructed intake (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 13

2.4	107	3.4	584	5.0	2,450
2.6	169	3.6	735	6.0	4,330
2.8	247	3.8	906	6.5	5,440
3.0	341	4.0	1,100		
3.2	453	4.5	1,690		

Mar. 13 to Sept. 30

2.3	81	3.4	637	6.0	4,350
2.4	107	3.6	830	7.0	6,700
2.6	171	4.0	1,280	8.0	9,720
2.8	251	4.5	1,900	8.7	12,500
3.0	351	5.0	2,600		
3.2	478	5.5	3,410		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	266	412	516	283	620	980	1,400	1,150	480	587	161	102
2	271	373	484	247	557	740	1,400	1,070	540	516	161	84
3	274	336	516	239	564	719	1,250	957	600	444	140	102
4	270	357	536	247	570	606	1,020	660	540	393	125	83
5	278	352	516	226	550	450	860	810	460	335	190	195
6	274	461	523	270	628	420	780	1,150	410	293	238	553
7	213	491	613	214	712	500	700	10,500	370	260	226	587
8	110	497	712	185	400	440	1,000	5,400	340	247	213	553
9	137	940	584	175	280	360	2,350	3,090	330	230	205	546
10	252	1,010	570	180	230	320	6,200	2,880	420	234	190	523
11	260	635	564	180	200	370	5,800	2,440	450	238	213	530
12	265	543	580	175	180	580	7,800	1,850	440	270	217	516
13	260	516	480	165	231	*2,400	8,800	1,600	350	298	209	538
14	211	657	410	155	283	*2,190	5,600	1,850	329	256	198	629
15	116	657	390	180	307	1,690	3,600	1,450	424	384	205	561
16	180	673	380	280	283	8,600	3,100	1,180	399	451	217	523
17	250	704	350	290	270	12,500	2,900	1,140	309	418	196	508
18	152	594	331	290	*312	5,800	2,150	1,080	330	405	164	465
19	169	564	436	300	270	2,600	1,800	920	894	418	196	451
20	166	1,410	430	250	235	1,850	1,550	780	1,680	303	234	444
21	149	1,240	*401	155	270	1,550	1,330	700	1,090	217	213	451
22	143	1,010	390	*165	297	1,300	3,380	1,400	872	265	294	387
23	197	871	290	180	460	1,500	2,470	4,310	637	238	182	196
24	302	696	225	170	2,600	3,700	5,070	2,690	4,130	198	149	152
25	312	628	270	170	2,310	4,100	3,570	1,950	5,730	186	246	128
26	331	635	450	190	2,730	4,000	2,890	1,350	2,770	171	393	138
27	379	650	491	580	5,260	3,100	2,460	980	1,660	182	531	119
28	438	712	536	2,500	3,200	2,500	1,910	800	1,110	187	465	133
29	659	642	500	3,180	1,630	1,900	1,550	680	862	239	231	177
30	1,010	550	390	1,610	-	1,550	1,280	580	693	198	127	209
31	590	-	288	925	-	1,450	-	520	-	161	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	8,884	1,010	110	287	-	-
November	19,816	1,410	336	661	-	-
December	14,152	712	225	457	-	-
Calendar year 1943	545,439	19,300	108	1,494	1.47	19.93
January	14,356	3,180	155	463	-	-
February	26,439	5,260	180	912	-	-
March	70,765	12,500	320	2,283	-	-
April	85,970	8,800	700	2,866	-	-
May	57,917	10,500	520	1,868	-	-
June	29,649	5,730	309	988	-	-
July	9,192	587	161	297	-	-
August	6,839	531	110	221	-	-
September	10,583	629	83	353	-	-
Water year 1943-44	354,562	12,500	83	969	.953	12.96

Peak discharge.- Mar. 17 (10 a.m.) 15,200 sec.-ft.; May 7 (12:30 p.m.) 14,700 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 12-17, 22-26, 29, 30, Jan. 8-28, Feb. 1, 8-11, 19, 20, 23, 24, Mar. 1, 2, 5-13, 16. Intakes partially obstructed Mar. 17 to Apr. 20, May 4, 12-22, May 26 to June 13; discharge computed on basis of discharge measurements, gage heights, weather records, and records for other stations in Genesee River Basin.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Genesee River at Jones Bridge, near Mount Morris, N. Y.

Location.- Water-stage recorder, lat. 42°45'55", long. 77°50'25", at Jones Bridge, 3½ miles northeast of Mount Morris, Livingston County. Datum of gage is 540.00 feet above mean sea level (levels by New York State Conservation Commission).

Drainage area.- 1,419 square miles.

Records available.- May 1903 to April 1906, August 1908 to April 1914, July 1915 to September 1944.

Average discharge.- 34 years (1908-13, 1915-44), 1,565 second-feet.

Extremes.- Maximum discharge during year, 17,000 second-feet Mar. 17; maximum gage height, 20.85 feet Mar. 17; minimum, 39 second-feet (regulated) Oct. 9 (gage height, 0.30 foot, backwater in channel); minimum daily, 81 second-feet Sept. 3 (regulated).
1903-6, 1908-14, 1915-44: Maximum discharge, 55,100 second-feet May 17, 1916 (gage height, 25.44 feet); minimum, 18 second-feet Aug. 29, 1909; minimum daily, 30 second-feet Aug. 8, 1909.

Remarks.- Records good except those for periods of ice effect or backwater in channel, which are fair. Diurnal fluctuation at low stages caused by power plants. Slight seasonal regulation by Caneadea Reservoir (capacity, 1,106,000,000 cubic feet).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	567	660	380	860	1,850	1,840	1,570	817	803	232	166
2	320	490	598	340	720	1,100	1,750	1,470	851	693	220	141
3	320	476	611	330	740	1,060	1,680	1,380	1,010	604	219	81
4	310	457	658	340	740	900	1,430	972	911	550	193	176
5	310	458	642	310	701	700	1,260	1,200	755	490	183	227
6	310	486	625	370	778	640	1,120	1,430	679	457	274	403
7	300	577	693	290	941	740	1,000	10,400	585	406	297	637
8	225	571	898	260	600	660	1,160	7,850	502	372	272	592
9	104	830	800	235	420	540	2,480	4,350	489	366	258	587
10	195	1,450	735	240	340	480	5,890	3,720	591	354	257	565
11	270	911	679	240	290	580	7,880	3,380	646	366	234	550
12	310	731	591	235	250	920	9,030	2,570	634	564	265	563
13	300	660	600	225	300	2,580	10,800	2,180	584	726	260	567
14	290	753	540	215	360	*3,190	7,450	2,470	441	513	247	731
15	195	791	500	220	390	2,200	4,910	2,020	691	447	248	621
16	195	821	470	320	370	10,000	4,210	1,610	622	494	250	575
17	370	842	440	350	360	14,900	3,840	1,550	513	515	293	552
18	195	776	420	350	400	8,960	2,970	1,480	477	510	242	505
19	215	670	520	360	360	4,370	2,470	1,300	1,170	501	224	500
20	230	1,380	560	340	320	2,890	2,190	1,120	2,040	523	279	490
21	210	1,610	*520	290	350	2,350	1,810	1,000	1,490	471	267	502
22	205	1,270	480	*230	390	1,990	3,650	1,460	1,240	285	281	465
23	195	1,140	410	230	620	2,130	2,900	5,000	933	292	352	399
24	310	913	320	260	3,000	4,120	5,360	3,940	2,940	326	228	162
25	350	826	420	245	2,800	4,660	4,480	2,950	6,250	281	316	181
26	370	814	580	300	3,700	4,560	3,660	2,090	3,540	256	355	201
27	470	844	640	840	7,600	3,790	3,210	1,590	2,160	337	429	172
28	500	909	700	3,200	5,900	3,210	2,570	1,270	1,540	245	520	182
29	780	852	640	4,400	3,230	2,510	2,090	1,070	1,200	324	450	235
30	1,290	730	580	2,370	-	2,160	1,770	941	977	280	238	249
31	828	-	410	1,350	-	1,990	-	845	-	240	169	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	10,792	1,290	104	348	-	-
November	24,605	1,610	457	820	-	-
December	17,940	898	320	579	-	-
Calendar year 1943	717,717	15,800	78	1,966	1.39	18.79
January	19,665	4,400	215	634	-	-
February	37,830	7,600	250	1,304	-	-
March	92,730	14,900	480	2,991	-	-
April	106,860	10,800	1,000	3,562	-	-
May	76,178	10,400	845	2,457	-	-
June	37,278	6,250	441	1,243	-	-
July	13,591	803	240	438	-	-
August	8,552	520	169	276	-	-
September	11,977	731	81	399	-	-
Water year 1943-44	457,998	14,900	81	1,251	.882	12.00

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 13 to Jan. 29, Feb. 1-4, 8-27, Mar. 1-12 (no gage-height record Feb. 8-18). Backwater in channel Oct. 1-29.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Genesee River at Driving Park Avenue, Rochester, N. Y.

Location.- Water-stage recorder, lat. 43°11'05", long. 77°37'40", in Rochester, Monroe County, 40 feet downstream from plant 5 of Rochester Gas & Electric Corporation and 100 feet upstream from Driving Park Avenue Bridge.

Drainage area.- 2,467 square miles.

Records available.- December 1919 to September 1944.

Average discharge.- 24 years (1920-44), 2,694 second-feet.

Extremes.- Maximum discharge during year, 18,900 second-feet (regulated) Mar. 17 (gage height, 9.43 feet); minimum, 15 second-feet (regulated) Dec. 21 (gage height, -2.12 feet); minimum daily, 705 second-feet (regulated) Oct. 10.

1919-44: Maximum discharge, 35,500 second-feet Apr. 2, 1940 (gage height, 14.08 feet); minimum, less than 10 second-feet, occurred during low-water periods in some years when power plant was shut down; minimum daily, 219 second-feet (regulated) Aug. 14, 1927.

Maximum discharge known, about 54,000 second-feet sometime in March 1865.

Remarks.- Records good except those between 3,500 second-feet and 5,500 second-feet, which are fair. New York State Barge Canal crosses river near southern boundary of Rochester. Water diverted by the canal from Lake Erie is discharged into river from the west, the canal again diverting a smaller amount of water from river to the east. Additional regulation is provided by Caneadea Reservoir.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	959	1,710	1,620	1,060	2,090	5,160	3,450	3,910	1,870	1,720	873	814
2	985	1,330	1,520	904	1,800	3,820	3,070	3,720	1,900	1,470	892	793
3	978	1,300	1,460	1,080	1,540	2,710	3,520	3,290	1,980	1,550	896	746
4	980	1,250	1,310	903	1,570	2,070	3,520	3,200	2,140	1,320	907	750
5	934	1,150	1,470	958	1,690	1,180	2,690	2,690	2,090	1,360	940	767
6	950	1,180	1,530	964	1,580	1,660	2,080	2,950	1,870	1,350	739	812
7	966	993	1,730	985	1,800	1,520	1,970	7,810	1,680	1,270	804	1,210
8	962	1,370	1,730	1,000	1,700	1,800	2,330	15,000	1,510	1,110	952	1,210
9	964	1,500	2,190	840	1,560	1,900	2,620	11,400	1,360	1,050	941	1,250
10	705	1,880	2,190	1,040	1,380	1,670	5,590	7,160	1,570	1,150	910	1,180
11	794	2,150	1,980	863	1,160	1,280	12,700	6,300	2,040	1,170	908	1,170
12	844	1,850	1,270	799	1,030	1,180	14,000	4,750	2,040	1,100	999	1,130
13	907	1,450	1,300	802	779	4,190	17,200	3,750	1,790	1,670	885	1,190
14	896	1,580	1,210	817	1,060	5,180	17,800	3,630	1,640	1,590	919	1,290
15	980	1,690	1,210	857	973	5,170	13,800	3,700	1,630	1,390	878	1,410
16	1,050	1,800	1,160	756	1,030	8,320	8,970	3,300	1,860	1,130	925	1,350
17	905	1,810	1,140	919	1,070	16,600	8,050	3,130	1,810	1,290	1,150	1,170
18	1,100	1,720	1,280	877	1,060	17,700	6,830	3,070	1,630	1,200	986	1,210
19	1,020	1,670	945	872	1,060	13,100	5,290	2,910	1,880	1,150	957	1,170
20	895	1,580	1,280	893	967	6,330	4,570	2,640	2,650	1,320	883	1,190
21	895	2,120	1,190	951	1,080	4,840	4,500	2,400	3,170	1,300	979	1,120
22	925	2,470	1,280	957	891	4,320	4,500	2,330	2,620	1,240	944	1,170
23	921	2,190	1,220	866	833	3,900	5,750	3,600	2,260	1,020	879	1,070
24	847	2,070	1,120	954	2,130	4,920	7,600	6,590	2,110	975	994	926
25	873	1,780	870	900	3,700	7,410	10,200	4,630	5,650	1,030	843	747
26	904	1,780	807	975	5,320	7,450	8,120	3,660	6,640	993	912	744
27	1,210	1,740	1,190	1,470	8,450	6,770	6,550	3,220	3,670	1,050	915	743
28	1,470	1,810	1,150	1,870	10,900	5,470	5,610	2,680	3,110	1,040	1,070	824
29	1,730	1,770	1,310	3,060	7,880	4,870	4,630	2,340	2,500	1,020	1,290	759
30	1,830	1,810	1,280	4,100	-	4,590	4,270	2,160	2,040	969	1,120	861
31	2,300	-	1,280	3,340	-	3,510	-	1,950	-	1,030	928	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	32,679	2,300	705	1,054	-	-
November	50,503	2,470	993	1,683	-	-
December	42,222	2,190	807	1,362	-	-
Calendar year 1943	1,318,120	23,200	705	3,611	1.46	19.87
January	37,632	4,100	756	1,214	-	-
February	68,083	10,900	779	2,348	-	-
March	160,590	17,700	1,180	5,180	-	-
April	201,780	17,800	1,970	6,726	-	-
May	133,870	15,000	1,950	4,318	-	-
June	70,710	6,640	1,360	2,357	-	-
July	38,027	1,720	969	1,227	-	-
August	29,218	1,290	739	943	-	-
September	30,776	1,410	743	1,026	-	-
Water year 1943-44	896,090	17,800	705	2,448	.992	13.51

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

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Canaseraga Creek near Dansville, N. Y.

Location.- Water-stage recorder, lat. 42°33'40", long. 77°42'55", just downstream from Ossian Street Bridge, half a mile downstream from Mill Creek, and 1 mile west of Dansville, Livingston County. Datum of gage is 640.00 feet above mean sea level (levels by New York State Conservation Commission).

Drainage area.- 153 square miles.

Records available.- July 1910 to December 1912, July 1915 to June 1917, March 1919 to September 1944. October 1917 to September 1919 at Cumminsville, 1¼ miles downstream, published as Canaseraga Creek at Cumminsville.

Average discharge.- 24 years (1920-44), 145 second-feet.

Extremes.- Maximum discharge during year, 4,490 second-feet Mar. 16 (gage height, 10.80 feet); minimum, 19 second-feet Aug. 22, 23 (gage height, 6.75 feet); minimum gage height, 5.99 feet Jan. 14, 25.

1910-12, 1915-44: Maximum discharge at present site, 8,830 second-feet July 23, 1940 (gage height, 13.1 feet, from floodmark), by contracted-opening method; maximum at former site, 9,110 second-feet July 23, 1940 (gage height, 9.93 feet), by slope-area method; minimum, 10 second-feet Aug. 9, 1934, Sept. 27, 28, 1941.

Remarks.- Records good except those for periods of ice effect or abnormal intake conditions, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	48	59	35	56	108	106	140	110	73	34	23
2	36	48	58	34	50	86	108	135	124	69	34	22
3	30	52	59	35	54	89	78	130	205	61	33	21
4	29	50	56	34	50	80	64	125	125	55	30	24
5	29	47	54	33	44	72	52	150	106	53	32	28
6	28	44	53	34	56	68	47	175	94	57	36	26
7	28	40	62	32	48	76	43	1,420	80	53	36	26
8	28	60	62	29	43	68	106	452	76	51	33	24
9	26	136	59	28	38	62	145	283	72	53	27	23
10	26	84	58	28	35	58	1,300	339	130	56	27	22
11	26	71	43	28	33	70	620	236	102	69	26	22
12	26	62	47	27	32	165	1,120	186	80	122	24	23
13	25	60	46	26	32	*370	1,000	195	76	105	23	27
14	25	56	44	25	32	185	640	215	114	55	23	34
15	33	54	42	25	34	300	420	160	125	49	22	33
16	51	59	40	24	35	1,950	400	160	91	47	23	27
17	39	58	44	24	35	1,650	330	140	78	47	29	24
18	33	58	43	24	*34	470	245	121	76	45	28	23
19	36	81	44	26	33	205	205	103	554	47	23	24
20	33	145	44	28	31	155	180	89	249	56	23	24
21	32	104	43	28	34	124	300	78	201	54	21	29
22	30	94	*40	*29	37	100	400	540	143	47	21	24
23	30	76	37	31	320	230	340	640	121	45	22	24
24	30	73	34	27	285	410	600	440	363	43	33	23
25	30	75	33	28	246	320	390	330	446	43	23	23
26	36	78	34	56	376	340	330	240	252	41	22	22
27	70	86	39	165	396	250	280	190	168	43	21	23
28	91	80	47	232	247	195	215	155	127	41	29	28
29	156	66	42	173	155	140	175	135	108	39	27	34
30	82	59	39	100	-	125	155	118	91	36	24	30
31	58	-	37	64	-	118	-	106	-	34	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,260	156	25	40.6	0.265	0.31
November	2,104	145	40	70.1	.458	.51
December	1,442	62	33	46.5	.304	.35
Calendar year 1943	66,337	2,770	25	182	1.19	16.12
January	1,512	232	24	48.8	.319	.37
February	2,901	396	31	100	.654	.71
March	8,659	1,950	58	279	1.82	2.10
April	10,394	1,300	43	346	2.26	2.53
May	7,926	1,420	78	256	1.67	1.93
June	4,687	554	72	156	1.02	1.14
July	1,694	122	34	54.6	.357	.41
August	833	36	21	26.9	.176	.20
September	760	34	21	25.3	.165	.18
Water year 1943-44	44,172	1,950	21	121	.791	10.74

Peak discharge.- Mar. 16 (2 a.m.) 4,490 sec.-ft.; May 7 (5 a.m.) 3,020 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 13-30, Jan. 5, 6, 9-12, 15-18, 24, 25, Jan. 30 to Feb. 2, Feb. 5-10, 12-16, 18-21, 23, Mar. 1, 2, 5-11. Abnormal intake conditions Mar. 12 to May 5, May 13-16, May 22 to June 12; discharge computed on basis of discharge measurements, gage heights, outside gage readings, and records for stations on nearby streams.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Canadice Lake Outlet near Hemlock, N. Y.

Location.- Hook gage, lat. 42°44'25", long. 77°34'15", upstream from weir at outlet of Canadice Lake, Ontario County, 4 miles southeast of Hemlock, Livingston County.

Drainage area.- 12.6 square miles.

Records available.- April 1903 to September 1944.

Average discharge.- 41 years, 11.5 second-feet.

Cooperation.- Records furnished by Department of Public Works, Division of Water, city of Rochester, N. Y.

Monthly discharge, water year October 1943 to September 1944

Month	Mean elevation of lake above low-water mark (feet)	Discharge in second-feet		Runoff in inches
		Mean	Per square mile	
October	+2.296	0.000	0.000	0.000
November	+2.293	6.386	.507	.565
December	+2.355	.003	.000	.000
Calendar year 1943	+3.073	14.563	1.156	15.689
January	+1.666	22.334	1.773	2.044
February	-.100	20.390	1.618	1.745
March	+.244	26.616	2.112	2.435
April	+.743	24.315	1.930	2.153
May	+2.281	5.628	.447	.515
June	+2.850	4.513	.358	.400
July	+2.759	3.384	.269	.310
August	+2.226	7.468	.593	.683
September	+1.222	7.985	.634	.707
Water year 1943-44	+1.746	10.699	.849	11.557

Note.- Terminal water-surface elevation for year ending Dec. 31, 1943, was 1.06 ft. lower than that of preceding year, corresponding to a decrease in storage of 33,320,044 cu. ft., or a discharge of 1.057 sec.-ft. for year. This adjustment applied to above gives a mean for year of 13.506 sec.-ft., 1.072 sec.-ft. per sq. mile, and 14.550 in. runoff from drainage area.

Terminal water-surface elevation for year ending Sept. 30, 1944, was 1.47 ft. lower than that of preceding year, corresponding to a decrease in storage of 43,929,339 cu. ft., or a discharge of 1.389 sec.-ft. for year. This adjustment applied to above gives a mean for year 9.310 sec.-ft., 0.739 sec.-ft. per sq. mile, and 10.057 in. runoff from drainage area.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Oswego River at lock 7, Oswego, N. Y.

Location.- Water-stage recorders, lat. 43°27'00", long. 76°30'25", at lock 7 in Oswego, Oswego County, three-quarters of a mile upstream from mouth. Datum of gage is 246.00 feet above mean sea level (New York State Barge Canal datum).

Drainage area.- 5,121 square miles.

Records available.- November 1933 to September 1944. April 1897 to December 1901 and, of doubtful accuracy, October 1927 to September 1928 at High Dam, about three-quarters of a mile upstream.

Average discharge.- 10 years (1934-44), 6,288 second-feet.

Extremes.- Maximum discharge during year, 16,000 second-feet (regulated) Apr. 14 (gage height, 8.15 feet), includes mean daily discharge of canals; minimum (river only), 33 second-feet (regulated) Feb. 2 (gage height, 1.10 feet); minimum daily discharge, 720 second-feet Sept. 3.

1933-44: Maximum discharge, 37,500 second-feet Mar. 28, 1936, includes mean daily discharge of canals; maximum gage height, 13.46 feet Apr. 10, 1940; minimum discharge (river only), that of Feb. 2, 1944; minimum gage height, 0.97 foot Aug. 24, 1934; minimum daily discharge, 465 second-feet Aug. 12, 1934.

Remarks.- Records excellent except those for periods of backwater from Lake Ontario and for Dec. 13 to Jan. 14, which are good. This record represents total discharge at Oswego and includes flow in Hydraulic and Barge Canals. A large amount of natural storage and some artificial regulation is afforded by the many large lakes and the Barge Canal system in river basin. Large diurnal fluctuations at low and medium flow caused by power plants above station. Oswego River Basin receives water from Erie division of Barge Canal through lock 32 near Pittsford. Small diversion from basin is occasionally made from tributary streams through summit level of Barge Canal at New London into Mohawk River Basin. During a part of year entire flow from 45 square miles of drainage area of Mud Creek may be diverted from Chemung River Basin into Lake Keuka in Oswego River Basin. During year nearly all of flow from 15.7 square miles of the Tioughnioga River Basin was diverted into DeRuyter Reservoir, in Oswego River Basin.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	840	6,740	6,140	4,730	6,880	9,050	11,900	11,700	5,190	6,290	2,800	1,500
2	1,250	6,420	6,210	4,600	6,650	8,710	11,600	11,200	5,260	5,890	2,700	920
3	1,060	5,880	6,100	5,310	6,230	7,860	11,200	10,600	5,270	5,750	2,400	720
4	1,080	6,090	6,210	5,760	5,700	6,470	9,380	10,700	4,510	5,430	2,500	1,450
5	1,700	6,090	5,240	5,720	5,630	5,210	8,220	10,600	5,120	6,150	2,600	1,650
6	1,300	5,980	6,490	5,790	5,280	5,320	7,510	10,400	4,770	5,980	1,800	1,450
7	1,350	5,430	7,300	5,650	5,940	5,360	7,220	10,800	4,630	5,650	2,570	1,400
8	1,350	6,320	7,200	5,590	6,080	5,370	7,110	12,200	4,560	5,370	2,610	1,400
9	1,250	8,620	6,740	5,090	6,320	5,030	6,850	13,800	4,640	4,750	2,630	1,350
10	1,060	9,580	6,650	5,640	6,250	5,280	8,070	14,400	4,820	4,380	2,490	800
11	1,650	9,890	5,620	5,640	6,330	5,080	10,100	14,600	4,780	4,840	2,480	1,040
12	1,350	11,300	5,380	5,360	5,860	4,880	12,200	14,500	5,140	4,100	2,400	1,100
13	1,400	10,300	5,290	5,360	5,810	6,880	14,000	13,700	5,070	3,800	1,700	960
14	1,400	8,720	5,600	5,560	6,420	8,130	14,800	12,800	4,980	3,400	1,800	1,250
15	1,250	8,230	6,760	5,580	6,420	8,710	15,600	12,200	4,920	2,900	2,590	1,350
16	1,450	8,090	5,760	5,140	6,280	9,490	15,500	12,400	5,050	2,700	2,620	1,450
17	1,450	7,960	5,740	5,590	6,420	10,000	15,300	12,200	5,240	3,000	2,450	1,060
18	2,250	7,650	5,950	5,750	6,550	11,200	14,700	11,800	5,090	3,400	2,700	1,100
19	2,900	6,970	5,350	5,490	6,630	10,600	13,800	11,000	6,050	2,900	2,500	1,530
20	2,350	6,640	5,740	5,750	5,960	9,750	12,600	10,500	6,530	3,100	1,550	1,440
21	2,200	5,970	5,950	5,720	6,630	9,320	11,900	9,780	6,570	3,000	2,380	1,450
22	1,750	6,680	5,980	5,850	6,890	8,350	10,200	9,350	6,790	2,800	2,420	1,600
23	1,450	7,090	5,770	5,720	6,940	8,040	9,670	10,900	6,630	2,250	2,580	1,080
24	1,140	7,060	6,080	6,520	7,320	9,390	11,500	11,100	7,220	2,900	1,650	900
25	1,550	6,610	5,410	6,840	7,650	12,800	13,700	10,800	7,140	3,000	1,850	1,470
26	2,500	7,120	5,580	6,960	7,950	13,700	13,600	9,760	7,440	2,900	2,000	1,720
27	2,800	7,720	5,890	7,520	7,980	14,300	14,000	9,320	7,840	2,800	1,140	1,670
28	3,500	6,770	5,600	8,800	8,460	13,900	14,100	8,570	7,480	2,800	1,600	1,180
29	5,280	6,190	5,770	9,200	9,270	13,400	13,900	7,410	7,100	2,400	2,390	1,300
30	6,020	6,160	5,960	8,630	-	13,100	12,600	6,120	6,830	2,000	2,250	1,510
31	6,140	-	5,650	7,980	-	12,600	-	5,210	-	2,300	1,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	64,020	6,140	840	2,065	0.403	0.46
November	220,270	11,300	5,430	7,342	1.43	1.60
December	185,110	7,300	5,240	5,971	1.17	1.34
Calendar year 1943	3,378,760	23,500	840	9,257	1.81	24.52
January	188,840	9,200	4,600	6,092	1.19	1.37
February	192,710	9,270	5,280	6,645	1.30	1.40
March	277,280	14,300	4,880	8,945	1.75	2.01
April	352,830	15,600	6,850	11,760	2.30	2.56
May	340,420	14,600	5,210	10,980	2.14	2.47
June	172,660	7,840	4,510	5,755	1.12	1.25
July	118,930	6,290	2,000	3,836	.749	.86
August	69,950	2,800	1,140	2,256	.441	.51
September	38,800	1,720	720	1,293	.252	.28
Water year 1943-44	2,221,820	15,600	720	6,071	1.19	16.11

Note.- Backwater from Lake Ontario Oct. 1-28, July 13 to Aug. 6, Aug. 12-14, 17-20, 24-28, Sept. 1-18, 21-24, 28, 29.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Fall Creek near Ithaca, N. Y.

Location.- Water-stage recorder and concrete control, lat. 42°27'20", long. 76°28'30", in Forest Home, Tompkins County, half a mile upstream from Cornell University Dam and 1½ miles northeast of Ithaca. Datum of gage is 794.81 feet above mean sea level, adjustment of 1912 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 124 square miles.

Records available.- February 1925 to September 1944. July 1908 to June 1909 at site 1¼ miles downstream.

Average discharge.- 19 years, 183 second-feet.

Extremes.- Maximum discharge during year, 3,310 second-feet Mar. 17 (gage height, 4.64 feet); minimum, 15 second-feet Sept. 4 (gage height, 0.36 foot).
1925-44: Maximum discharge, 15,500 second-feet July 8, 1935 (gage height, 9.52 feet), from average of computed flow over each of four dams; minimum, about 3 second-feet Aug. 25, 1927 (gage height, 0.18 foot).

Remarks.- Records excellent except those for periods of ice effect, which are fair. Cornell University diverted 337,309,000 gallons during year from a point about a mile above station for water supply, equivalent to a mean discharge at station of 1.43 second-feet.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.3	12	1.0	71	2.0	434
.4	18	1.2	104	2.5	775
.5	24	1.4	153	3.0	1,200
.6	32	1.6	225	3.5	1,710
.8	49	1.8	320	4.1	2,480

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	221	129	54	68	104	266	145	82	70	24	18
2	32	183	131	52	60	84	238	134	90	63	23	18
3	30	206	145	*50	70	*86	221	124	112	55	21	17
4	24	173	137	49	68	80	198	113	93	50	21	15
5	20	142	131	49	64	70	176	115	74	47	25	16
6	19	126	119	54	78	66	156	104	65	44	26	18
7	18	113	178	54	68	90	156	853	87	43	25	20
8	18	136	143	48	60	120	292	1,210	81	41	22	20
9	18	1,580	134	46	54	94	410	465	66	39	20	18
10	17	553	134	45	50	76	907	623	83	32	18	18
11	17	331	81	44	48	86	772	492	126	47	18	17
12	16	252	82	43	47	122	704	305	80	45	17	16
13	16	217	96	41	45	520	732	243	62	62	17	19
14	16	194	*76	40	44	480	410	261	61	48	18	27
15	18	173	70	40	43	450	320	206	135	37	20	67
16	37	186	66	39	42	*1,700	300	170	90	35	22	52
17	209	153	76	36	41	2,480	280	183	69	32	29	32
18	73	148	74	36	40	927	221	150	61	30	24	24
19	45	153	72	37	38	400	190	126	150	28	20	22
20	44	238	72	40	37	330	173	115	589	30	18	23
21	40	183	70	43	43	270	176	104	502	42	17	23
22	35	242	62	48	45	222	186	279	322	43	18	37
23	42	198	58	52	140	463	170	530	173	32	18	31
24	34	176	54	50	280	1,100	409	230	418	28	28	24
25	42	173	52	43	330	980	591	186	346	27	33	21
26	48	190	54	54	260	1,210	404	150	190	26	24	20
27	858	225	68	175	180	781	326	126	131	26	20	19
28	764	217	102	360	160	526	234	122	104	28	18	19
29	1,960	140	76	225	140	416	186	102	91	39	18	28
30	621	126	64	125	-	331	160	90	82	36	18	37
31	315	-	58	80	-	348	-	80	-	28	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,464	1,960	13	176	1.42	1.64
November	7,348	1,580	113	245	1.98	2.20
December	2,864	178	52	92.4	.745	.86
Calendar year 1943	85,030	2,040	13	233	1.88	25.52
January	2,152	360	33	69.4	.560	.65
February	2,643	330	37	91.1	.735	.79
March	15,012	2,480	65	484	3.90	4.50
April	9,964	907	153	332	2.68	2.99
May	8,136	1,210	80	262	2.11	2.44
June	4,615	589	61	154	1.24	1.38
July	1,233	70	23	39.8	.321	.37
August	658	33	17	21.2	.171	.20
September	736	67	15	24.5	.198	.22
Water year 1943-44	60,825	2,480	13	166	1.34	18.24

Peak discharge.- Nov. 9 (8:40 a.m.) 2,310 sec.-ft.; Mar. 17 (12:20 p.m.) 3,310 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 13 to Jan. 19, Jan. 23 to Feb. 10, Feb. 13 to Mar. 16, Mar. 20, 21.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Cayuga Inlet near Ithaca, N. Y.

Location.- Water-stage recorder and concrete control, lat. 42°23'35", long. 76°32'40", half a mile upstream from Butternut Creek and 5 miles south of Ithaca, Tompkins County. Datum of gage is 437.16 feet above mean sea level (levels by Corps of Engineers, U. S. Army).
Drainage area.- 36.7 square miles.
Records available.- March 1937 to September 1944.
Extremes.- Maximum discharge during year, 1,060 second-feet Mar. 16 (gage height, 3.77 feet); minimum, 3.8 second-feet Feb. 7 (gage height, 0.52 foot).
1937-44: Maximum discharge, 4,110 second-feet Aug. 13, 1942 (gage height, 7.58 feet), from rating curve extended above 650 second-feet on basis of slope-area determinations at gage heights 5.5 feet and 7.58 feet; minimum, 1.8 second-feet Aug. 30, 31, Sept. 1, 2, 1939 (gage height, 0.42 foot).
Remarks.- Records good except those for periods of ice effect, doubtful gage-height record, or partially obstructed intake, which are fair.

Rating tables, water year 1943-44, except periods of ice effect, partially obstructed intake, or shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 15

0.5	3.3	1.0	35	1.8	196
.6	6.2	1.1	47	2.0	264
.7	10	1.2	61	2.2	347
.8	16	1.4	97		
.9	25	1.6	141		

Mar. 16 to Sept. 30

0.5	3.3	0.9	25	1.6	144
.55	4.6	1.0	35	1.8	203
.6	6.5	1.1	47	2.0	275
.7	11	1.2	61	2.4	457
.8	17	1.4	97		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.7	45	30	13	10	17	48	41	29	25	8.2	4.6
2	14	42	30	12	9.8	13	46	37	27	22	7.8	4.5
3	8.2	40	30	11	11	14	40	34	28	20	7.2	4.2
4	6.6	33	27	10	11	12	39	31	23	17	7.0	4.2
5	6.0	28	27	10	10	11	34	32	20	16	7.6	4.4
6	5.9	26	25	12	12	10	31	28	19	15	9.0	4.6
7	5.6	23	28	11	10	17	31	351	23	14	8.6	5.0
8	5.4	148	24	8.6	9.2	22	55	257	20	13	7.6	5.0
9	5.4	302	24	8.2	8.8	17	58	139	17	12	6.1	4.5
10	5.3	116	22	8.0	8.6	12	142	183	22	11	5.7	4.4
11	5.3	84	*14	7.8	8.4	13	112	119	19	12	5.4	4.2
12	5.3	64	15	7.8	8.2	40	139	89	16	12	5.0	4.2
13	5.2	57	17	7.6	8.0	200	101	80	15	13	4.8	4.6
14	5.2	47	15	7.4	7.8	69	75	73	48	12	11	6.2
15	6.2	42	14	7.4	7.8	123	64	58	47	11	14	10
16	33	47	13	7.2	7.6	*444	63	53	24	11	7.8	9.0
17	25	37	14	6.8	7.4	438	55	48	20	10	6.2	7.2
18	12	35	15	6.8	7.2	125	46	41	17	9.8	5.6	6.4
19	10	43	15	7.0	7.0	63	42	36	93	9.4	5.2	6.0
20	9.0	45	15	7.4	6.8	54	39	33	113	9.1	5.0	5.8
21	8.2	42	14	8.0	9.0	50	41	29	123	11	4.8	5.8
22	7.8	54	13	8.8	10	48	42	54	73	11	4.8	6.2
23	7.6	42	12	9.5	*135	284	d55	52	54	10	4.6	5.6
24	7.4	40	11	9.0	118	212	d112	40	80	9.8	5.8	5.2
25	7.2	42	11	7.8	85	157	116	35	93	9.4	6.2	5.0
26	37	43	12	13	44	134	95	40	60	8.9	5.4	4.8
27	105	45	17	23	36	97	76	65	45	8.6	5.0	4.8
28	248	39	24	26	35	78	61	41	35	9.2	4.8	5.4
29	271	31	19	24	27	63	53	33	35	11	4.6	6.9
30	101	29	16	16	-	64	46	28	32	10	4.6	5.7
31	60	-	14	12	-	58	-	25	-	8.8	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,048.5	271	5.2	33.8	0.921	1.06
November	1,711	302	23	57.0	1.55	1.73
December	577	30	11	18.6	.507	.58
Calendar year 1943	18,461.1	415	4.4	50.6	1.38	18.69
January	334.1	26	6.8	10.8	.294	.34
February	675.6	135	6.8	23.3	.635	.68
March	2,959	444	10	95.5	2.60	3.00
April	1,957	142	31	65.2	1.78	1.98
May	2,205	351	25	71.1	1.94	2.23
June	1,270	123	15	42.3	1.15	1.29
July	382.0	25	8.6	12.3	.335	.39
August	200.0	14	4.6	6.45	.176	.20
September	164.4	10	4.2	5.48	.149	.17
Water year 1943-44	13,483.6	444	4.2	36.8	1.00	13.65

Peak discharge.- Mar. 16 (1 a.m.) 1,060 sec.-ft.; Mar. 17 (6:30 a.m.) 1,000 sec.-ft.
* Winter discharge measurement made on this day.
d Doubtful gage-height record; discharge computed on basis of outside gage readings and records for nearby stations.
Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 5, Jan. 9-22, 25, 26, Feb. 1-3, 5, 8-23, 28, Mar. 2-13 (doubtful gage-height record Dec. 25 to Jan. 1). Intake partially obstructed July 28 to Aug. 8, Aug. 14 to Sept. 26; discharge computed on basis of discharge measurements, outside gage readings, and records for nearby stations. Shifting-control method used Mar. 16, 17, July 10-17.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Canandaigua Lake at Canandaigua, N. Y.

Location.- Staff gage, lat. 42°52'30", long. 77°16'20", at west outlet at northern end of Canandaigua Lake on west side of E. T. Waldorf's boathouse, 1 mile southeast of Canandaigua, Ontario County. Datum of gage is 680.76 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 189 square miles.

Records available.- November 1939 to September 1944. Records previously collected at same site by Oswego River Watershed Corporation of Fulton, N. Y.

Extremes.- Maximum gage height observed during year, 7.95 feet May 8-10, 14; minimum observed, 5.05 feet Jan. 21, 22, 26, 27, Feb. 9.
1939-44: Maximum gage height observed, 9.09 feet Apr. 12, 13, 1940; minimum observed, 4.45 feet Jan. 30, 1942.

Remarks.- Lake is formed by dams at two outlets. West outlet, which usually carries most of lake outflow, is an artificial canal 1¼ miles long emptying into Canandaigua Lake Outlet; spillway consists of permanent stop log 9.3 feet long with top at elevation 683.96 feet extending across a masonry arch opening under roadway. East outlet is at head of natural outlet channel from lake; spillway consists of 40 feet of detachable stop logs mounted in several layers on concrete footing. The city engineer, Canandaigua, N. Y., regulates storage in lake for Oswego River Watershed Corporation, Fulton, N. Y., by operation of stop logs at east outlet. Capacity of lake not determined. Area of water surface is about 16.57 square miles at elevation 686 feet. Staff gage read twice daily.

Gage height, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.95	6.1	5.8	5.5	5.15	5.7	6.8	7.5	7.2	7.2	6.7	6.05
2	5.9	6.1	5.95	5.45	5.2	5.6	6.8	7.5	7.2	7.2	6.7	6.05
3	5.9	6.15	6.05	5.5	5.2	5.7	6.75	7.5	7.25	7.2	6.65	6.0
4	5.9	5.1	6.1	5.4	5.2	5.7	6.75	7.4	7.2	7.15	6.6	5.95
5	5.9	6.1	d6.05	5.4	5.15	5.75	6.75	7.5	7.3	7.1	6.65	5.95
6	5.85	6.1	d6.05	5.45	5.2	5.7	6.7	7.65	7.25	7.1	6.65	5.85
7	5.85	6.1	d6.05	5.4	5.15	5.7	6.7	7.8	7.15	7.15	6.55	5.6
8	5.85	6.1	d6.05	5.4	5.1	5.7	6.7	7.95	7.1	7.1	6.55	5.5
9	5.85	6.1	d6.05	5.4	5.05	5.7	6.7	7.95	7.1	7.05	6.55	5.8
10	5.85	6.1	6.05	5.4	5.1	5.65	6.75	7.95	7.15	7.0	6.55	5.85
11	5.85	6.15	6.1	5.4	5.1	5.7	6.8	7.9	7.15	7.0	6.5	5.85
12	5.85	6.15	6.0	5.35	5.1	5.7	7.1	7.9	7.15	7.05	6.45	5.85
13	5.85	6.1	5.9	5.35	5.1	5.7	7.3	d7.9	7.1	7.05	6.4	5.85
14	5.85	6.1	5.95	5.35	5.1	d5.65	7.45	7.9	7.1	7.1	6.4	5.9
15	5.85	6.1	5.9	5.3	5.1	d5.65	7.5	7.85	7.15	7.05	6.4	5.9
16	5.9	6.1	5.9	5.2	5.15	d6.35	7.5	7.8	7.2	7.0	6.4	5.85
17	5.9	6.15	5.85	5.15	5.1	d6.6	7.5	7.7	7.2	6.95	6.35	5.85
18	5.9	6.2	5.9	5.2	5.1	d6.65	7.45	7.65	7.1	6.9	6.3	5.85
19	5.85	6.2	5.85	5.15	5.1	d6.6	7.5	7.7	7.25	6.95	6.3	5.85
20	5.8	6.2	5.9	5.1	5.1	d6.7	7.45	7.55	7.25	6.9	6.25	5.85
21	5.8	6.15	5.85	5.05	5.15	d6.65	7.45	7.5	7.25	6.9	6.25	5.85
22	5.75	6.2	5.9	5.1	5.15	d6.6	7.5	7.5	7.3	6.85	6.25	5.8
23	5.75	6.2	5.85	5.1	5.2	d6.7	7.5	7.55	7.3	6.85	6.2	5.8
24	5.75	6.2	5.85	5.1	5.2	d6.85	7.8	7.5	7.3	6.9	6.15	5.75
25	5.75	6.2	5.85	5.1	5.3	6.9	7.7	7.55	7.3	6.75	6.2	5.75
26	5.75	6.2	5.9	5.1	5.3	6.9	7.65	7.5	7.3	6.8	6.15	5.75
27	5.75	6.2	5.85	5.05	5.5	6.9	7.6	7.4	7.3	6.8	6.2	5.7
28	5.85	6.2	5.9	5.1	5.6	6.85	7.6	7.4	7.3	6.85	6.2	5.65
29	6.05	6.2	5.65	5.1	5.7	6.7	7.55	7.45	7.3	6.8	6.05	5.7
30	6.1	5.9	5.55	5.1	-	6.7	7.5	7.3	7.2	6.7	6.05	5.7
31	6.1	-	5.5	5.1	-	6.75	-	7.3	-	6.75	6.05	-

d Doubtful gage-height record; mean daily gage heights estimated on basis of precipitation records and records for Canandaigua Lake Outlet at Chapin.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Canandaigua Lake Outlet at Chapin, N. Y.

Location.- Water-stage recorder, lat. 42°55'00", long. 77°14'00", in Chapin, Ontario County, about 500 feet upstream from highway bridge and 3 miles downstream from Canandaigua Lake. Datum of gage is 673.6 feet (revised) above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 139 square miles.

Records available.- November 1939 to September 1944.

Extremes.- Maximum discharge during year, 506 second-feet May 10 (gage height, 3.18 feet); minimum, 35 second-feet Oct. 21, 22 (gage height, 1.51 feet, backwater from weeds).

1939-44: Maximum discharge, 1,100 second-feet Mar. 17, 1942 (gage height, 4.64 feet); minimum, 11 second-feet Sept. 28, 1943 (gage height, 1.235 feet); minimum gage height, 1.22 feet Feb. 1, 1942.

Remarks.- Records excellent except those for periods of backwater from weeds, which are good, and those for periods of ice effect, which are fair. Seasonal regulation caused by operation of stop logs on dam at east outlet of Canandaigua Lake.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	66	125	113	56	125	270	338	315	122	80	52
2	52	68	125	111	70	122	264	328	283	118	82	52
3	50	66	123	109	70	127	254	322	180	114	82	52
4	48	66	118	107	68	125	251	318	148	110	80	52
5	45	66	113	107	72	125	245	302	143	108	80	54
6	43	64	111	109	76	125	242	214	135	106	78	52
7	42	64	113	100	70	137	239	382	128	104	78	52
8	41	74	111	82	64	135	242	328	123	102	76	50
9	40	92	109	102	76	130	245	454	121	102	76	48
10	39	72	109	106	66	125	296	502	130	100	74	47
11	41	68	100	102	60	118	280	496	125	98	74	46
12	40	70	84	96	56	169	236	482	120	100	72	47
13	40	70	86	90	58	167	328	471	118	100	70	48
14	40	66	84	86	*66	148	344	461	120	98	70	50
15	39	64	*84	82	80	168	331	447	130	94	70	48
16	43	66	88	78	82	314	354	437	122	92	68	48
17	42	66	90	74	80	306	354	427	124	90	70	47
18	41	66	102	72	76	306	338	407	116	90	68	47
19	40	68	130	70	74	310	328	394	122	92	66	48
20	38	68	145	68	72	302	302	380	125	94	62	48
21	36	68	150	68	70	302	220	374	125	90	60	48
22	35	72	135	68	68	300	202	370	125	88	58	47
23	41	70	120	66	109	*325	205	377	125	88	58	46
24	50	70	116	*64	173	334	321	374	135	86	60	46
25	52	72	135	63	150	331	370	367	135	86	58	44
26	54	74	140	66	153	338	390	360	130	84	56	43
27	64	92	130	70	183	331	384	354	130	86	56	43
28	72	120	122	73	145	299	370	344	130	84	58	44
29	86	125	118	77	132	296	360	338	130	86	58	43
30	70	127	120	71	-	286	351	331	125	84	56	41
31	66	-	115	70	-	277	-	325	-	66	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,480	86	35	47.7	-	-
November	2,260	127	64	75.3	-	-
December	3,551	150	84	115	-	-
Calendar year 1943	85,650	840	12	235	1.18	16.00
January	2,620	113	63	84.5	-	-
February	2,575	183	56	88.8	-	-
March	7,003	338	118	226	-	-
April	8,916	390	202	297	-	-
May	11,804	502	214	381	-	-
June	4,218	315	116	141	-	-
July	2,962	122	66	95.5	-	-
August	2,108	82	54	68.0	-	-
September	1,433	54	41	47.8	-	-
Water year 1943-44	50,930	502	35	139	.698	9.52

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 11-30, Jan. 7-18, 24, Feb. 1-21, 25, Mar. 1, 2, 4-6, 8-11, 19, 22. Backwater from weeds Oct. 1 to Nov. 28, June 12 to Sept. 30 (no gage-height record Oct. 5-9). Decrease in contents in Canandaigua Lake during calendar year 1943, about 683,700,000 cu.ft. (equivalent mean discharge, 21.7 sec.-ft.: runoff, 1.48 in.); decrease in elevation, 1.48 ft.; decrease during water year 1943-44, about 138,600,000 cu.ft. (equivalent mean discharge, 4.38 sec.-ft.; runoff, 0.30 in.); decrease in elevation, 0.30 ft.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Owasco Lake Outlet near Auburn, N. Y.

Location.- Water-stage recorder and concrete control, lat. 42°56'45", long. 76°36'05", 2½ miles downstream from center of Auburn, Cayuga County, and 4 miles downstream from State dam at outlet of Owasco Lake.
Drainage area.- 208 square miles.
Records available.- November 1912 to September 1944.
Average discharge.- 31 years (1913-44), 283 second-feet.
Extremes (regulated).- Maximum discharge during year, 1,210 second-feet Apr. 13 (gage height, 3.57 feet); minimum, 6.2 second-feet Oct. 10 (gage height, 1.405 feet, backwater from weeds); minimum daily, 8.2 second-feet Oct. 10.
1912-44: Maximum discharge, 2,090 second-feet Mar. 19, 1936, Apr. 9, 1940 (gage height, 4.88 feet); minimum, about 2 second-feet Dec. 5, 1936 (gage height, 1.36 feet); minimum daily, 5 second-feet Nov. 11, 1934.
Remarks.- Records good except those for periods of backwater from weeds, which are fair. Diurnal fluctuation caused by mills in Auburn; seasonal regulation at State dam. Water supply for Auburn taken from Owasco Lake, part of which returns as sewage to outlet above gaging station.

Rating tables, water year 1943-44, except periods of backwater from weeds
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Oct. 27.

1.4	5.7
1.5	17
1.6	31
1.8	69

Oct. 28 to Sept. 30

1.6	31	2.6	378
1.8	70	2.8	508
2.0	121	3.0	665
2.2	187	3.2	845
2.4	272	3.5	1,140

Note.- Same as preceding table below 1.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.
1	43	103	320	202	45	145	738	420	325	310	175	70
2	40	142	315	210	62	159	746	430	330	280	175	68
3	36	137	307	203	90	172	649	438	320	290	165	86
4	38	139	310	199	156	179	538	431	300	300	160	66
5	37	153	304	200	88	184	481	421	300	310	160	84
6	38	161	312	189	82	193	442	415	300	320	155	82
7	60	186	307	186	169	211	433	459	300	320	150	79
8	21	218	306	178	176	204	417	464	300	310	150	75
9	28	275	295	176	185	200	399	507	300	310	150	72
10	8.2	329	286	174	180	197	594	616	310	310	150	71
11	34	364	280	145	181	197	649	718	280	310	124	71
12	31	a360	269	155	178	218	860	707	280	270	72	70
13	32	358	268	153	184	227	1,020	662	290	240	82	68
14	28	355	265	146	*185	229	1,000	610	300	235	90	75
15	35	358	*262	139	178	253	950	600	300	230	90	78
16	47	356	265	129	182	340	921	556	310	230	84	75
17	29	354	256	113	180	445	906	520	290	220	96	68
18	23	346	246	157	176	507	823	527	290	225	90	69
19	22	338	247	144	171	577	720	521	320	220	82	70
20	23	336	256	140	161	564	609	509	300	220	72	71
21	23	346	240	138	171	576	567	489	300	205	80	77
22	23	352	161	132	173	571	514	483	300	190	80	65
23	25	349	157	132	202	*607	463	494	290	195	82	59
24	28	349	164	*132	207	633	481	465	310	195	90	61
25	21	343	113	128	215	677	493	412	290	195	72	58
26	44	339	170	146	212	758	498	410	290	195	70	55
27	56	329	171	153	213	838	488	367	290	190	70	53
28	79	336	167	171	187	878	472	303	300	190	72	55
29	100	311	164	179	136	865	452	309	310	185	70	57
30	45	326	176	179	-	850	428	311	320	185	70	54
31	38	-	195	161	-	792	-	319	-	175	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,135.2	100	8.2	36.6	-	-
November	8,748	364	103	292	-	-
December	7,554	320	113	244	-	-
Calendar year 1943	150,437.2	1,510	8.2	412	1.98	26.89
January	4,989	210	113	161	-	-
February	4,725	215	45	163	-	-
March	13,446	878	145	434	-	-
April	18,751	1,020	399	625	-	-
May	14,893	718	303	480	-	-
June	9,045	330	280	302	-	-
July	7,560	320	175	244	-	-
August	3,298	175	70	106	-	-
September	2,062	86	53	68.7	-	-
Water year 1943-44	96,206.2	1,020	8.2	263	1.26	17.18

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
Note.- Backwater from weeds Oct. 1-27, June 2 to Sept. 5. Decrease in contents in Owasco Lake during calendar year 1943, about 1,381,200,000 cu.ft. (equivalent mean discharge, 43.8 sec.-ft.; runoff, 2.86 in.); decrease in elevation, 4.81 feet; decrease during water year 1943-44 about 83,300,000 cu.ft. (equivalent mean discharge, 2.63 sec.-ft.; runoff, 0.17 in.); decrease in elevation, 0.29 ft.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Onondaga Creek at Syracuse, N. Y.

Location.- Water-stage recorder and steel plate weir, lat. 42°00'35", long. 76°09'00", 75 feet upstream from end of channel improvement, 300 feet upstream from Ballantyne Road Bridge, and 2 miles south of center of Syracuse, Onondaga County. Datum of gage is 401.25 feet above mean sea level, datum of 1929.

Drainage area.- 98.2 square miles.

Records available.- November 1939 to September 1944.

Extremes.- Maximum discharge during year, 1,160 second-feet Mar. 17 (gage height, 5.88 feet); minimum, 4.0 second-feet (regulated) Oct. 14 (gage height, 1.95 feet); minimum daily, 18 second-feet (regulated) Aug. 22.

1939-44: Maximum discharge, 3,980 second-feet Dec. 30, 1942 (gage height, 9.58 feet); minimum, 1.2 second-feet (regulated) Sept. 12, 1941 (gage height, 1.85 feet); minimum daily, 8.5 second-feet (regulated) Sept. 6, 1942.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diurnal fluctuation at low and medium flow caused by mills.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.2	18	2.7	80	3.6	277
2.3	28	2.8	98	4.0	392
2.4	38	3.0	136	4.5	562
2.5	51	3.2	179	5.0	755
2.6	65	3.4	226	5.6	1,030

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb	Mar	Apr.	May	June	July	Aug.	Sept.
1	21	112	104	54	78	117	197	157	61	68	28	24
2	29	102	107	50	70	*96	190	149	65	61	31	23
3	27	99	*117	48	74	102	179	138	76	55	32	24
4	a24	98	109	47	68	90	166	130	68	52	28	21
5	a22	86	105	46	74	80	154	124	57	48	27	21
6	a21	88	97	52	134	82	138	114	55	46	27	23
7	a20	71	156	50	97	150	141	213	126	43	28	22
8	20	75	129	46	80	180	151	444	77	41	25	19
9	20	544	114	*44	80	112	175	271	63	40	23	21
10	20	411	108	45	72	96	367	241	109	37	23	22
11	20	195	86	48	66	84	504	224	128	53	23	20
12	21	155	80	48	62	131	406	184	76	63	21	19
13	19	140	76	47	60	518	559	164	61	246	20	22
14	21	131	70	46	60	315	360	161	56	105	20	33
15	20	119	66	47	64	235	272	144	78	57	21	54
16	38	130	64	44	64	663	277	128	77	50	21	38
17	159	114	66	41	60	1,010	290	135	168	43	26	30
18	54	103	70	41	58	687	230	118	96	40	31	26
19	39	105	70	42	58	250	198	105	208	39	25	27
20	a33	118	72	43	60	225	180	99	264	44	21	29
21	a30	105	70	46	66	207	171	96	317	65	19	26
22	a28	119	66	54	65	181	167	134	247	50	18	25
23	a28	112	62	64	225	258	161	179	153	41	20	24
24	38	109	60	56	296	863	351	129	198	36	33	23
25	a37	112	58	48	266	543	417	112	198	34	33	22
26	a41	125	60	117	226	496	296	96	137	33	30	21
27	a284	142	72	297	180	364	251	89	106	38	26	27
28	a195	168	94	332	196	287	209	79	89	35	22	20
29	484	128	74	224	153	242	184	72	80	36	25	29
30	297	108	64	156	-	223	168	68	72	35	27	28
31	149	-	58	*96	-	221	-	63	-	33	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,259	484	19	72.9	0.742	0.86
November	4,224	544	71	141	1.44	1.60
December	2,604	156	58	84.0	.855	.99
Calendar year 1943	59,649	1,110	19	163	1.66	22.62
January	2,419	332	41	78.0	.794	.92
February	3,112	296	58	107	1.09	1.18
March	9,108	1,010	80	294	2.99	3.45
April	7,509	559	138	250	2.55	2.84
May	4,560	444	63	147	1.50	1.73
June	3,566	317	55	119	1.21	1.35
July	1,666	245	33	53.7	.547	.63
August	780	33	18	25.2	.257	.30
September	763	54	19	25.4	.259	.29
Water year 1943-44	42,570	1,010	18	116	1.18	16.14

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for nearby stations.

Note.- Stage-discharge relation affected by ice Dec. 11-18, Dec. 22 to Jan. 23, Jan. 31 to Feb. 5, Feb. 8-20, Mar. 2-6, 9-11, 19, 20.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Limestone Creek at Fayetteville, N. Y.

Location.- Water-stage recorder, lat. 43°01'45", long. 75°00'50", 100 feet downstream from Genesee Street Bridge in Fayetteville, Onondaga County, and about 8 miles upstream from mouth. Datum of gage is 427.62 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 85.7 square miles, not including 15.7 square miles of Middle Branch Tioughnioga Creek Basin, flow from which may be completely diverted into Limestone Creek Basin through DeRuyter Reservoir.

Records available.- November 1939 to September 1944.

Extremes.- Maximum discharge during year, 1,780 second-feet Mar. 17 (gage height, 4.93 feet); minimum, 32 second-feet (regulated) Sept. 26 (gage height, 1.57 feet); minimum gage height, 1.55 feet July 26, 27 (affected by shifting control).

1939-44: Maximum discharge, 6,260 second-feet Dec. 30, 1942 (gage height, 7.18 feet), from rating curve extended above 4,930 second-feet by logarithmic plotting; minimum, 14 second-feet (regulated) Aug. 10, 1940, Aug. 17, 1941; minimum gage height, 1.365 feet Aug. 17, 1941.

Remarks.- Records good except those for periods of ice effect, no gage-height record, or shifting control, which are fair. Flow affected by a canal diverting from Limestone Creek about 3 miles above station and returning water to Creek about 400 feet above station and by regulation of DeRuyter Reservoir.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	136	115	68	*74	*120	178	133	63	72	48	51
2	78	132	115	63	66	106	178	126	65	67	58	51
3	75	132	*137	61	68	112	157	118	75	61	53	56
4	71	155	132	61	66	104	148	109	65	59	48	51
5	69	132	132	60	72	96	137	107	57	56	48	51
6	68	122	121	68	125	98	124	96	58	54	50	53
7	68	115	212	66	104	137	125	342	193	51	48	53
8	65	133	137	*60	84	144	162	918	83	50	45	51
9	65	718	141	56	84	112	190	371	65	48	44	53
10	65	352	137	58	78	98	527	368	113	48	42	51
11	63	a206	104	60	72	92	476	278	128	50	40	50
12	65	a178	90	61	70	195	483	205	82	85	40	48
13	65	a163	88	60	68	509	493	177	69	134	40	53
14	65	153	84	58	68	259	299	200	61	70	40	73
15	69	148	80	60	72	262	237	159	81	57	45	92
16	85	157	78	56	70	880	264	145	72	53	44	a77
17	150	143	84	52	66	1,380	242	151	99	51	64	a65
18	90	136	90	52	64	568	180	127	72	50	74	a62
19	80	144	91	54	64	215	159	112	231	48	62	65
20	78	163	91	55	68	190	150	105	212	50	61	64
21	76	146	86	57	82	176	144	96	330	65	59	65
22	73	153	82	66	85	150	144	174	183	57	56	87
23	74	144	78	80	186	418	136	220	132	51	56	70
24	78	146	76	69	257	873	473	151	323	48	67	68
25	76	150	74	56	250	642	454	127	237	46	62	62
26	81	157	80	130	208	690	318	109	155	45	57	55
27	364	155	96	340	174	408	245	101	123	49	54	59
28	292	159	118	380	188	305	190	87	103	53	51	61
29	559	125	94	230	148	234	162	78	91	56	53	90
30	279	114	82	145	-	214	145	71	81	54	53	76
31	159	-	73	90	-	209	-	66	-	51	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,611	559	63	116	-	-
November	5,167	718	114	172	-	-
December	3,198	212	73	103	-	-
Calendar year 1943	68,772	1,810	35	188	2.19	29.86
January	2,832	380	52	91.4	-	-
February	3,081	257	64	106	-	-
March	9,996	1,380	92	322	-	-
April	7,320	527	124	244	-	-
May	5,627	918	66	182	-	-
June	3,702	330	57	123	-	-
July	1,789	134	45	57.7	-	-
August	1,612	74	40	52.0	-	-
September	1,863	92	48	62.1	-	-
Water year 1943-44	49,798	1,380	40	136	1.59	21.63

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage, reconstructed gage-height record, and records for Onondaga Creek at Syracuse.

Note.- Stage-discharge relation affected by ice Dec. 11, 13-17, 22-26, 28-30, Jan. 8-10, 16-19, Jan. 25 to Feb. 21, Mar. 2, 4-6, 9-11, 19, 20, 22. Shifting-control method used June 11, July 2-27, Aug. 22 to Sept. 14.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

East Branch Fish Creek at Taberg, N. Y.

Location.- Water-stage recorder, lat. 43°18'05", long. 75°37'10", at highway bridge in Taberg, Oneida County, just downstream from Furnace Creek. Datum of gage is 491.12 feet above mean sea level, datum of 1929.
Drainage area.- 189 square miles.
Records available.- April 1923 to September 1944.
Average discharge.- 21 years, 538 second-feet.
Extremes.- Maximum discharge during year, 6,180 second-feet Apr. 24 (gage height, 6.58 feet); minimum, 12 second-feet (regulated) Aug. 16 (gage height, 0.045 foot).
1923-44: Maximum discharge, about 16,500 second-feet Oct. 6, 1932 (gage height, 9.18 feet), from rating curve extended above 2,700 second-feet by logarithmic plotting; minimum, 5.4 second-feet (regulated) June 28, 1941 (gage height, -0.10 foot).
Remarks.- Records good except those for periods of ice effect or fragmentary gage-height record, which are fair. The city of Rome diverted 5,500,300,000 gallons during year above station for water supply, equivalent to a mean discharge of 23.3 second-feet or 5.3 per cent of average flow for year. Operation of gates at Rome diversion dam occasionally caused diurnal fluctuation during low flow.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-29

0.5	42	1.3	181	3.0	1,030
.6	53	1.6	268	3.5	1,450
.8	81	2.0	426	4.2	2,210
1.0	115	2.5	691		

Oct. 30 to Sept. 30

0.0	10	0.8	80	3.0	1,100
.1	15	1.0	111	3.5	1,540
.2	22	1.3	180	4.0	2,060
.3	30	1.6	279	5.0	3,340
.4	38	2.0	447	5.8	4,640
.6	57	2.5	729		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	*564	265	165	320	159	624	2,040	111	76	60	21
2	98	429	f245	145	290	155	642	1,780	109	69	48	24
3	101	419	f245	135	270	150	642	1,370	150	65	41	88
4	80	589	f220	125	250	145	584	1,150	127	65	34	71
5	65	572	f260	125	233	145	534	1,020	108	60	25	51
6	60	477	182	130	*217	140	508	769	101	56	35	39
7	53	401	354	*135	204	206	530	1,150	97	43	52	63
8	50	830	290	130	185	290	823	2,550	96	39	31	72
9	48	4,210	*f287	125	170	270	1,180	1,420	93	37	23	79
10	45	*1,890	298	122	160	260	4,170	1,280	514	39	19	67
11	42	1,020	137	124	155	250	3,340	1,050	936	52	14	52
12	42	679	170	125	150	272	2,710	729	393	44	31	56
13	46	561	200	125	150	394	*2,240	578	207	74	31	53
14	51	502	175	124	145	462	1,760	672	142	69	19	199
15	70	424	140	122	145	433	1,460	524	133	49	20	371
16	139	401	150	120	145	438	1,390	419	410	38	14	239
17	886	313	*150	118	150	655	1,490	358	730	31	37	128
18	602	333	155	116	140	742	1,790	298	368	25	75	96
19	374	357	155	114	135	*618	2,030	254	605	26	36	78
20	262	452	150	113	135	618	2,420	220	817	70	25	93
21	202	f410	140	115	140	572	2,750	204	444	164	22	124
22	169	f424	140	117	160	508	2,190	345	294	97	18	648
23	142	306	135	125	190	518	2,250	415	210	68	16	350
24	129	306	130	121	243	809	3,980	298	365	51	38	170
25	117	317	125	125	230	1,020	4,530	247	492	44	35	111
26	118	310	135	140	215	1,420	3,310	217	307	35	42	99
27	1,620	358	235	f205	*192	1,250	2,740	195	183	69	35	79
28	1,350	388	280	f390	175	1,150	2,290	170	133	150	24	98
29	2,210	294	260	f520	164	1,040	1,980	145	106	198	24	423
30	1,530	238	215	397	-	858	2,070	127	87	132	26	329
31	848	-	180	350	-	729	-	119	-	83	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	11,594	2,210	42	374	1.98	2.28
November	18,684	4,120	238	623	3.30	3.68
December	6,203	354	125	200	1.06	1.22
Calendar year 1943	243,094	4,720	40	666	3.52	47.84
January	5,143	520	113	166	.878	1.01
February	5,458	320	135	188	.995	1.07
March	16,676	1,420	140	538	2.85	3.28
April	58,957	4,530	508	1,965	10.40	11.60
May	22,113	2,550	119	713	3.77	4.35
June	8,868	936	87	296	1.57	1.75
July	2,118	198	25	68.3	.361	.42
August	976	75	14	31.5	.167	.19
September	4,371	648	21	146	.772	.86
Water year 1943-44	161,161	4,530	14	440	2.33	31.71

Peak discharge.- Nov. 9 (6:15 a.m.) 5,200 sec.-ft.; Apr. 10 (6:30 p.m.) 5,930 sec.-ft.; Apr. 24 (10 p.m.) 6,180 sec.-ft.
* Winter discharge measurement made on this day.
f Fragmentary gage-height record; discharge computed from recorded range in stage and graph based on twice-daily gage readings.
Note.- Stage-discharge relation affected by ice Dec. 12 to Jan. 19, Jan. 25, Jan. 31 to Feb. 4, Feb. 8-23, 25, 26, Mar. 2-6, 9-11 (fragmentary gage-height record Dec. 19, 20, Feb. 4).
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Black River near Boonville, N. Y.

Location.- Water-stage recorder, lat. 43°50'35", long. 75°18'25", at highway bridge, three-quarters of a mile upstream from Sugar River and 2 miles northeast of Boonville, Oneida County.

Drainage area.- 295 square miles.

Records available.- February 1911 to September 1944.

Average discharge.- 33 years, 661 second-feet (unadjusted).

Extremes.- Maximum discharge during year, 5,030 second-feet Apr. 25 (gage height, 9.22 feet); minimum, 115 second-feet (regulated) Aug. 23 (gage height, 3.72 feet).
1911-44: Maximum discharge, about 10,000 second-feet Mar. 28, 1913 (gage height, about 12.5 feet); minimum, about 5 second-feet (regulated) Aug. 26, 1918 (gage height, 2.40 feet).

Remarks.- Records excellent except those for periods of ice effect, which are good. Flow partly regulated by several headwater reservoirs. Forestport feeder diverts water from State Pond at Forestport. That portion of diverted water which does not pass down Black River Canal (flowing south) returns to Black River below station through Mill Creek sluiceway.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

3.8	130	4.7	391	6.5	1,480
3.9	151	5.0	516	7.0	1,950
4.0	174	5.3	665	8.0	3,130
4.2	226	5.6	838	9.1	4,820
4.4	286	6.0	1,100		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	869	403	310	340	340	790	2,680	319	299	199	143
2	218	660	407	300	330	330	761	2,620	309	252	184	145
3	240	623	399	290	320	320	720	2,380	302	226	169	240
4	215	598	387	290	*310	310	682	2,070	293	207	160	226
5	189	603	387	290	320	310	644	1,900	270	204	156	189
6	172	588	347	300	340	320	598	1,620	258	196	162	167
7	165	573	410	310	350	340	639	1,420	277	194	184	207
8	184	610	384	310	340	380	808	1,700	299	184	196	210
9	226	1,550	387	300	320	400	1,000	1,620	274	186	165	204
10	199	1,710	*387	*290	310	390	2,790	1,370	419	210	151	202
11	194	1,110	319	280	310	380	4,060	1,380	1,010	340	147	182
12	189	863	290	280	300	380	*3,610	1,110	640	293	149	174
13	194	755	280	280	290	400	2,830	932	418	309	149	215
14	199	692	280	280	290	450	2,150	972	340	296	145	303
15	223	639	270	290	320	420	1,690	894	302	243	143	1,010
16	270	613	270	280	350	420	1,500	778	396	212	138	1,270
17	494	563	260	280	360	580	1,520	704	778	186	156	622
18	503	558	280	270	340	660	1,650	634	613	176	226	386
19	376	544	300	280	330	700	1,840	568	672	174	182	302
20	306	554	300	300	330	700	2,200	525	1,030	192	156	286
21	258	558	310	310	350	*660	2,790	498	802	316	147	346
22	235	598	320	300	360	640	2,820	569	737	344	143	1,180
23	223	544	310	300	370	620	2,770	820	593	267	138	989
24	215	507	300	290	*370	840	3,390	682	658	223	162	676
25	210	503	290	270	370	900	4,790	563	857	202	156	588
26	207	540	290	280	360	1,040	3,980	512	660	194	153	498
27	1,330	563	300	320	350	1,140	3,510	490	530	238	143	418
28	1,780	549	330	390	350	1,140	3,170	472	422	306	138	387
29	1,780	455	330	430	340	1,040	2,800	434	354	293	138	578
30	1,870	384	320	390	-	1,000	2,690	391	322	243	138	593
31	1,260	-	310	360	-	880	-	340	-	215	138	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	14,282	1,870	158	461	1.56	1.80
November	20,476	1,710	384	683	2.32	2.58
December	10,157	410	260	328	1.11	1.28
Calendar year 1943	316,724	4,620	149	868	2.94	39.93
January	9,450	430	270	305	1.03	1.19
February	9,720	370	290	335	1.14	1.23
March	18,430	1,140	310	595	2.02	2.32
April	65,192	4,790	598	2,173	7.37	8.22
May	33,648	2,680	340	1,085	3.68	4.24
June	15,154	1,030	258	505	1.71	1.91
July	7,420	344	174	239	.810	.94
August	4,911	226	138	158	.536	.62
September	12,936	1,270	143	431	1.46	1.63
Water year 1943-44	221,776	4,790	138	606	2.05	27.96

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 12 to Mar. 31 (faulty gage-height record Jan. 8, 9, 17-26, Feb. 21, 22, Mar. 5-8).
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Black River at Watertown, N. Y.

Location.- Water-stage recorder, lat. 43°59'05", long. 75°55'30", at Vanduzee Street Bridge, in Watertown, Jefferson County.
Drainage area.- 1,876 square miles.
Records available.- July 1920 to September 1944.
Average discharge.- 24 years, 3,826 second-feet.
Extremes.- Maximum discharge during year, 20,000 second-feet Apr. 26 (gage height, 7.67 feet); minimum, 27 second-feet (regulated) Sept. 3 (gage height, -0.14 foot); minimum daily, 544 second-feet (regulated) Sept. 3.

1920-44: Maximum discharge, 33,900 second-feet Apr. 9, 1928 (gage height, 10.6 feet); minimum, 10 second-feet (estimated, regulated) Sept. 2, 1934 (gage height, -0.19 foot); minimum daily, 137 second-feet (regulated) Sept. 4, 1939.

Maximum discharge known, about 39,700 second-feet in April 1869.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Stillwater Reservoir, Fulton Chain of Lakes, and other reservoirs. During canal season water is diverted out of basin through Forestport feeder and Black River Canal (flowing south). Large diurnal fluctuation at low and medium flow caused by mills and power plants in Watertown and above.

Rating tables, water year 1943-44, except periods of ice effect or shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 12				Apr. 13 to Sept. 30					
1.5	1,140	3.5	4,750	0.8	467	1.7	1,440	4.0	6,040
1.7	1,390	4.0	6,040	.9	549	2.0	1,860	5.0	8,990
2.0	1,820	5.0	8,990	1.0	638	2.5	2,670	6.0	12,600
2.5	2,650	6.0	12,400	1.2	836	3.0	3,620	7.6	19,600
3.0	3,620	7.0	16,600	1.4	1,060	3.5	4,750		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,580	7,570	2,670	1,800	2,430	1,800	6,810	11,400	1,600	1,730	1,480	1,150
2	1,730	6,280	2,580	1,600	*2,300	1,850	6,560	10,800	1,590	1,470	1,560	1,380
3	1,460	5,000	2,560	1,400	2,150	1,780	5,480	10,500	1,740	1,090	1,630	544
4	1,340	4,170	2,580	1,450	2,150	1,550	4,920	10,000	1,640	1,350	1,770	782
5	1,580	3,500	2,260	1,450	2,000	1,400	4,330	9,650	1,300	1,050	1,810	762
6	1,670	3,320	2,250	1,460	1,860	1,350	3,920	a9,190	1,620	1,180	616	1,150
7	1,560	2,950	2,210	1,550	1,810	1,490	3,560	a8,990	1,680	1,600	1,040	1,330
8	1,600	2,790	2,460	1,550	1,850	1,760	3,720	a9,520	1,610	1,350	1,140	1,390
9	1,560	5,710	2,360	1,400	1,650	1,800	4,510	9,860	1,540	1,170	1,200	1,560
10	1,350	7,840	2,660	1,400	1,600	2,000	8,770	9,900	1,720	1,010	1,280	1,090
11	1,390	7,510	2,000	1,600	1,550	2,200	11,800	9,720	1,910	1,040	1,230	1,230
12	1,430	7,070	1,600	*1,550	1,550	2,000	16,400	8,730	2,850	1,500	1,330	1,390
13	1,420	6,010	1,550	1,600	1,450	2,150	19,200	7,870	2,630	1,410	862	1,440
14	1,450	4,700	*1,750	1,550	1,300	2,800	17,300	6,840	2,180	1,370	755	1,380
15	1,450	3,820	1,700	1,640	1,600	2,950	14,700	5,880	1,860	1,440	1,130	1,540
16	1,640	3,250	1,700	1,400	1,550	2,910	12,500	5,560	1,800	1,390	1,180	2,740
17	1,950	3,150	1,750	1,200	1,500	3,650	11,400	4,950	1,790	1,060	1,110	3,450
18	2,390	2,840	1,800	1,300	1,450	4,300	11,200	4,260	2,200	1,180	1,010	2,660
19	2,710	2,860	1,850	1,420	1,400	4,180	10,700	3,710	2,420	1,370	986	2,010
20	2,400	3,240	1,540	1,350	1,350	3,760	10,500	3,290	2,520	1,350	1,040	1,660
21	2,190	3,130	1,810	1,350	1,550	a3,600	10,800	2,800	2,650	1,340	1,310	1,430
22	2,060	2,730	1,900	1,410	1,650	*a3,500	11,200	2,470	2,800	1,380	1,210	1,550
23	2,080	2,950	1,850	1,280	1,680	3,170	12,000	3,120	3,490	1,420	1,170	2,950
24	1,390	3,010	1,700	1,200	1,650	3,680	13,000	3,570	3,500	1,120	1,090	3,190
25	1,300	2,900	1,350	1,400	1,650	5,000	15,300	3,530	3,470	1,310	1,020	2,250
26	1,810	2,680	1,450	1,420	*1,700	7,570	18,600	2,820	4,100	1,460	1,050	2,040
27	3,650	2,900	1,640	2,130	1,610	7,660	19,100	2,790	3,980	1,470	998	1,870
28	6,840	3,560	1,800	4,260	1,610	7,540	16,800	2,480	2,630	1,600	1,010	1,710
29	8,240	2,960	1,950	3,570	1,730	7,750	14,600	2,000	2,170	1,640	1,150	1,740
30	8,580	2,790	2,100	2,940	-	7,480	12,800	2,060	1,820	1,550	1,150	2,270
31	8,140	-	2,030	2,640	-	7,130	-	1,730	-	1,290	1,130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	79,940	8,580	1,300	2,579	-	-
November	123,190	7,840	2,680	4,106	-	-
December	61,410	2,670	1,350	1,981	-	-
Calendar year 1943	1,753,515	18,600	955	4,804	2.56	34.74
January	53,270	4,260	1,200	1,718	-	-
February	49,330	2,430	1,300	1,701	-	-
March	111,730	7,750	1,350	3,604	-	-
April	332,480	19,200	3,560	11,080	-	-
May	189,990	11,400	1,730	6,129	-	-
June	68,810	4,100	1,300	2,294	-	-
July	41,690	1,730	1,010	1,345	-	-
August	36,447	1,810	616	1,176	-	-
September	51,638	3,450	544	1,721	-	-
Water year 1943-44	1,199,925	19,200	544	3,278	1.75	23.78

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of upstream power-plant records.
Note.- Stage-discharge relation affected by ice Dec. 11-18, 22-26, 28-30, Jan. 1-5, 7-13, 16-18, 24, 25, Feb. 2, 4, 5, 8-21, 24-26, Mar. 1, 2, 4-6, 9-11, 14. Shifting-control method used Apr. 12.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Black River Canal (flowing south) near Boonville, N. Y.

Location.- Two water-stage recorders and concrete controls, lat. 43°27'20", long. 75°19'25", No. 1 on main canal at lock 69, and No. 2 on Lansingkill spillway, 100 feet downstream from head gates in summit level of canal, 600 feet upstream from lock 70, and 2 miles south of Boonville, Oneida County. Datum of gage No. 1 is 1,105.56 feet above mean sea level, datum of 1929.

Records available.- September 1915 to September 1942 (canal seasons only), October 1942 to September 1944.

Extremes.- Maximum daily discharge during year, 124 second-feet Oct. 27; minimum daily, 1.3 second-feet Feb. 20.
1915-44: Maximum daily discharge recorded, 323 second-feet Nov. 30, 1915; practically no flow at times when no water is being diverted.

Remarks.- Records good except those for periods of ice effect or no gage-height record at gage 1, which are fair. Record shows combined flow at gages 1 and 2 and represents total diversion from Black River at Forestport, through Forestport feeder, into Mohawk River basin. Discharge during period Oct. 27 to May 30, when no water was diverted, made up of leakage through head gates and runoff from area draining into canal above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	17	10	2.1	2.2	1.6	a11	7.0	21	24	19	20
2	60	15	10	1.9	2.6	1.5	a14	6.8	21	24	18	19
3	60	15	11	1.8	2.4	1.5	13	6.3	25	24	17	28
4	59	14	12	1.7	*2.2	1.4	12	6.3	36	22	17	18
5	58	13	12	1.8	2.1	1.4	11	5.1	37	23	17	22
6	57	14	8.8	2.1	2.5	1.5	10	4.4	38	22	20	22
7	58	*13	13	1.9	2.2	3.6	12	8.3	39	21	18	26
8	58	19	11	1.8	2.0	5.4	18	19	38	21	7.0	27
9	58	65	13	1.7	1.9	5.2	28	8.8	38	21	14	25
10	58	40	*13	*1.6	1.8	3.6	66	11	50	23	18	24
11	59	25	7.2	1.8	1.8	3.2	23	8.5	60	24	18	22
12	59	20	10	1.6	1.7	3.9	23	6.5	42	20	18	22
13	59	17	6.6	1.5	1.7	12	20	6.0	42	21	18	27
14	60	17	4.8	1.5	1.6	8.6	15	6.5	40	20	18	35
15	62	15	3.8	1.6	1.6	6.6	13	5.1	39	18	17	48
16	63	15	3.4	1.5	1.5	5.9	16	4.8	50	18	17	38
17	67	12	4.0	1.4	1.5	14	15	4.5	55	17	18	28
18	59	13	3.3	1.4	1.5	15	14	4.1	43	17	24	27
19	71	14	3.0	1.5	1.4	14	13	3.8	55	18	20	26
20	70	16	2.8	1.6	1.3	9.6	12	4.9	66	20	18	26
21	69	16	2.6	1.8	1.4	*5.9	13	10	51	25	18	30
22	68	9.6	2.4	2.1	1.5	4.9	11	13	48	22	17	53
23	68	10	2.2	2.1	1.8	6.5	10	17	43	20	17	36
24	68	12	2.1	1.6	*1.9	15	22	15	53	20	21	32
25	68	11	2.0	1.5	1.6	19	19	13	34	20	21	30
26	68	12	2.0	1.6	1.5	39	13	11	18	20	21	28
27	124	15	2.8	3.2	1.6	29	10	10	12	21	19	28
28	59	16	3.2	5.6	1.8	21	8.8	7.3	12	22	20	28
29	63	12	2.8	4.8	1.8	16	7.6	4.8	25	22	20	42
30	42	10	2.4	2.9	-	a14	7.6	5.3	24	22	19	39
31	23	-	2.2	3.0	-	a12	-	13	-	20	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,931	124	23	62.3		
November	512.6	65	9.6	17.1		
December	189.4	13	2.0	6.11		
Calendar year 1943	9,039.1	124	1.5	24.8		
January	64.0	5.6	1.4	2.06		
February	52.4	2.6	1.3	1.81		
March	301.8	39	1.4	97.4		
April	481.0	66	7.6	16.0		
May	257.1	19	3.8	8.29		
June	1,155	66	12	38.5		
July	652	25	17	21.0		
August	562.0	24	7.0	18.1		
September	876	53	18	29.2		
Water year 1943-44	7,034.3	124	1.3	19.2		

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for nearby stations.
Note.- Stage-discharge relation affected by ice Nov. 17, 24, 29, 30, Dec. 5, 6, 10-15, Dec. 19 to Jan. 27, Feb. 8 to Mar. 15, Mar. 19, 20.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Moose River at McKeever, N. Y.

Location.- Water-stage recorder, lat. 43°36'40", long. 75°06'35", half a mile west of McKeever, Herkimer County and 2 miles downstream from South Branch. Datum of gage is 1,479.92 feet above mean sea level, datum of 1929.
Drainage area.- 365 square miles.
Records available.- May 1922 to September 1944. June 1900 to December 1922 at site at Moose River, 2¾ miles downstream.
Average discharge.- 36 years (1907-13, 1914-44), 828 second-feet (unadjusted).
Extremes.- Maximum discharge during year, 5,460 second-feet Apr. 25 (gage height, 9.01 feet); minimum, 77 second-feet (regulated) Aug. 23, 29 (gage height, 1.47 feet).
1900-1944: Maximum discharge recorded, about 16,500 second-feet Mar. 27, 1913 (gage height, 16.2 feet, from floodmarks, site and datum then in use); minimum, about 42 second-feet (regulated) July 21, 23, 25-27, 1913.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Fulton Chain of Lakes. Occasional slight diurnal fluctuation during low and medium flow caused by paper mill in McKeever.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 24

2.0	202	3.5	783
2.2	260	4.0	1,040
2.5	361	4.7	1,490
3.0	558		

Note.- Same as following table above 4.7 feet.

Apr. 25 to Sept. 30

1.4	65	2.6	403	5.3	1,910
1.5	82	3.0	566	6.0	2,470
1.7	122	3.5	800	7.0	3,320
2.0	198	4.0	1,070	8.0	4,300
2.3	293	4.7	1,490	8.9	5,330

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	408	860	333	370	520	245	915	4,040	254	a370	314	86
2	420	727	312	360	500	235	880	4,090	241	a340	238	86
3	416	677	299	350	480	225	817	3,500	231	a300	198	86
4	408	632	292	340	450	215	741	3,800	210	a260	170	184
5	401	588	282	360	*420	210	672	3,770	213	a225	150	310
6	393	554	260	390	390	205	614	3,040	195	a205	134	324
7	390	*553	280	390	370	220	562	2,420	213	a190	122	328
8	383	516	270	*380	350	240	575	2,790	244	173	109	354
9	379	1,430	260	370	330	245	645	2,840	254	160	101	376
10	372	1,960	250	370	320	240	2,150	2,220	263	155	93	376
11	365	1,230	*210	360	300	230	4,300	2,260	434	148	86	369
12	358	890	245	360	290	225	3,600	1,970	454	143	90	361
13	358	745	230	350	290	260	*2,800	1,690	332	162	90	361
14	358	654	220	350	280	290	2,300	1,680	267	307	88	392
15	361	575	*215	340	280	290	1,900	1,550	231	244	86	699
16	375	524	210	340	280	310	1,650	1,280	a270	204	86	917
17	471	443	205	330	270	360	1,500	1,080	a380	181	84	532
18	575	435	330	330	270	450	1,450	944	a350	162	88	358
19	516	424	400	320	260	500	1,620	831	a400	152	93	273
20	463	412	390	320	260	*600	1,960	750	a600	150	95	260
21	431	401	390	310	260	580	2,650	669	a960	160	93	384
22	408	390	380	310	270	540	2,590	697	a1,550	195	86	796
23	397	379	380	310	*270	480	2,900	932	982	201	80	894
24	393	370	370	320	270	600	3,830	842	1,060	181	82	632
25	390	360	370	320	260	840	5,310	731	2,670	162	82	511
26	393	354	360	340	260	1,250	4,700	664	1,380	148	86	454
27	938	390	390	370	260	1,450	4,240	588	852	148	86	430
28	1,390	390	400	440	250	1,410	3,780	515	619	162	82	474
29	1,410	370	400	560	250	1,290	3,460	351	482	190	80	592
30	1,790	350	390	600	-	1,160	3,690	273	399	201	82	780
31	1,200	-	380	560	-	1,010	-	368	-	389	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	17,310	1,790	358	558	-	-
November	18,583	1,960	350	619	-	-
December	9,703	400	205	313	-	-
Calendar year 1943	337,718	6,200	143	925	2.53	34.40
January	11,520	600	310	372	-	-
February	9,260	520	250	319	-	-
March	16,405	1,450	205	529	-	-
April	68,801	5,310	562	2,293	-	-
May	53,175	4,090	273	1,715	-	-
June	16,990	2,670	195	566	-	-
July	6,368	389	143	205	-	-
August	3,440	314	80	111	-	-
September	12,979	917	86	433	-	-
Water year 1943-44	244,534	5,310	80	668	1.83	24.90

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage and records for stations on Middle Branch at Old Forge and near McKeever.
Note.- Stage-discharge relation affected by ice Nov. 24, 25, 29, 30, Dec. 7 to Mar. 27, Apr. 10-16.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Middle Branch Moose River at Old Forge, N. Y.

Location.- Staff gage, lat. 43°42'50", long. 74°58'10", in Old Forge, Herkimer County, 400 feet downstream from State dam.
Drainage area.- 52 square miles.
Records available.- November 1911 to September 1944.
Average discharge.- 32 years (1912-44), 103 second-feet (unadjusted).
Extremes (regulated).- Maximum discharge observed during year, 332 second-feet Oct. 1, 2 (gage height, 3.5 feet); maximum daily, 332 second-feet Oct. 1, 2; minimum observed, 0.1 second-foot Mar. 23 to Apr. 13; minimum daily, 0.1 second-foot Mar. 23 to Apr. 13.
1911-44: Maximum daily discharge, 862 second-feet Mar. 23, 1921, from rating curve extended above 450 second-feet by logarithmic plotting; minimum daily, about 0.1 second-foot many times during 1938-39, Mar. 23 to Apr. 13, 1944, when gates in dam were closed.
Remarks.- Records good except those below 5 second-feet, which are fair. On days of changes in gate openings discharge is averaged for intervals of a day from graph based on gage readings and record of gate operations. Gage read twice daily. Flow regulated by Fulton Chain of Lakes.

Rating tables, water year 1943-44, except periods of backwater
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 11

1.5	0.1	2.0	18	3.0	191
1.6	1.2	2.2	37	3.2	242
1.7	3.6	2.4	65	3.5	332
1.8	6.8	2.6	101		
1.9	11	2.8	144		

May 12 to Sept. 30

1.4	0.10	1.9	16	2.8	144
1.5	.2	2.0	23	3.0	191
1.6	1.9	2.2	45	3.2	242
1.7	4.9	2.4	72	3.5	332
1.8	9.4	2.6	104		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1	332	0.4	10	179	131	68	0.1	0.3	3.7	50	48	4.0
2	332	.4	10	179	129	65	.1	.4	3.7	50	21	66
3	316	.4	10	179	126	62	.1	.4	3.7	25	4.6	256
4	316	.6	10	198	122	59	.1	.4	3.7	3.7	4.6	256
5	316	.6	10	204	118	56	.1	1.2	3.7	3.7	4.6	256
6	316	.6	10	204	118	56	.1	3.1	3.7	3.7	4.6	256
7	316	.7	10	204	116	58	.1	3.1	3.7	3.7	4.6	269
8	300	.7	10	191	109	59	.1	3.6	3.7	3.7	4.6	285
9	300	.7	10	191	105	59	.1	26	3.7	3.7	4.3	285
10	300	.8	11	191	103	58	c.1	152	3.7	3.7	4.3	285
11	285	.9	11	191	101	56	c.1	285	3.7	3.7	4.3	285
12	285	.9	11	191	99	56	.1	285	3.7	3.7	4.3	270
13	285	.9	11	191	95	56	.1	285	3.7	3.7	4.3	270
14	270	.9	11	191	92	58	.2	285	3.7	3.7	4.3	270
15	270	.9	11	179	90	59	.2	245	4.0	3.7	4.3	163
16	270	.9	11	179	86	59	.2	136	44	3.7	4.3	.2
17	270	.9	141	179	84	59	.2	136	72	3.7	4.3	1.2
18	256	.9	204	179	82	62	.2	138	72	3.7	4.3	1.2
19	256	.9	204	167	82	62	.2	140	72	3.7	4.3	64
20	242	.9	204	167	80	62	.3	140	74	3.7	4.0	229
21	242	.9	204	156	79	65	.3	140	75	3.7	4.0	229
22	242	.9	204	156	79	47	.3	140	109	3.7	4.0	229
23	242	6.2	204	156	79	.1	.3	140	127	3.7	4.0	229
24	229	11	204	156	79	.1	.3	140	127	3.7	4.0	229
25	229	11	191	144	77	.1	c.3	140	127	3.7	4.3	229
26	229	11	191	144	75	.1	c.3	124	127	3.7	4.3	229
27	123	11	191	144	75	.1	c.3	81	106	4.9	4.3	266
28	.2	11	191	140	72	.1	c.3	39	50	26	4.3	316
29	.3	11	191	140	72	.1	c.3	3.7	50	43	4.3	316
30	.4	10	191	140	-	.1	.3	3.7	50	43	4.3	316
31	.4	-	191	135	-	.1	-	3.7	-	48	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,370.3	332	0.2	238	-	-
November	98.9	11	.4	3.30	-	-
December	3,073	204	10	99.1	-	-
Calendar year 1943	52,362.2	741	.2	143	2.75	37.46
January	5,345	204	135	172	-	-
February	2,755	131	72	95.0	-	-
March	1,301.9	68	.1	42.0	-	-
April	5.8	.3	.1	.193	-	-
May	3,220.6	285	.3	104	-	-
June	1,337.8	127	3.7	44.6	-	-
July	375.0	50	3.7	12.1	-	-
August	193.7	48	4.0	6.25	-	-
September	6,359.6	316	.2	212	-	-
Water year 1943-44	31,436.6	332	.1	85.9	1.65	22.48

c Backwater from North Branch of Moose River; discharge computed on basis of gage heights and record of gate operation at Old Forge Dam.
Note.- Doubtful gage-height record Nov. 5, 6, 23, Dec. 11-13, Feb. 19, 20, Apr. 14-21, 23, 24, May 1, Aug. 3-13, 15-18, 20-24, 31; discharge computed on basis of discharge measurements and records of elevations and gate operation at Old Forge Dam. Decrease in combined storage in Old Forge and Sixth Lake Reservoirs during calendar year 1943, about 656,700,000 cu.-ft. (equivalent mean discharge, 20.8 sec.-ft.; runoff, 5.43 in.); increase during water year 1943-44, about 25,600,000 cu.-ft. (equivalent mean discharge, 0.810 sec.-ft.; runoff, 0.21 in.)
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

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Middle Branch Moose River near McKeever, N. Y.

Location.- Water-stage recorder, lat. 43°37'45", long. 75°04'55", half a mile upstream from confluence with South Branch and 1½ miles northeast of McKeever, Herkimer County. Datum of gage is 1,530.29 feet above mean sea level, datum of 1929.

Drainage area.- 148 square miles.

Records available.- October 1925 to September 1944.

Average discharge.- 19 years, 320 second-feet (unadjusted).

Extremes.- Maximum discharge during year, 1,260 second-feet Apr. 27 (gage height, 5.41 feet); minimum, 32 second-feet (regulated) Aug. 23, 29 (gage height, 1.82 feet).
1925-44: Maximum discharge, 2,100 second-feet Apr. 27, 1926; maximum gage height, 7.15 feet Jan. 18, 1938 (ice jam); minimum discharge, that of Aug. 23, 29, 1944.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Fulton Chain of Lakes.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 26				Apr. 27 to Sept. 30					
2.4	85	3.5	336	1.8	31	2.7	131	4.5	741
2.5	99	4.0	526	1.9	38	3.0	188	5.0	1,000
2.6	114	4.5	748	2.0	46	3.3	264	5.4	1,260
2.8	149	5.0	1,000	2.2	65	3.6	360		
3.1	215	5.3	1,190	2.4	88	4.0	515		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	388	301	140	245	260	130	252	1,020	a94	167	142	34
2	392	307	131	235	245	125	240	994	a88	156	101	34
3	384	304	126	235	235	120	230	984	a84	145	75	66
4	377	282	121	240	225	116	220	956	a76	121	59	243
5	370	264	117	250	*220	110	210	923	a78	98	50	276
6	363	240	112	260	215	106	200	880	a74	89	46	279
7	356	*212	110	260	205	110	188	845	a80	81	43	288
8	350	210	112	250	190	118	200	850	a90	74	40	307
9	346	336	110	240	185	125	226	785	a102	75	38	313
10	339	343	108	240	175	124	641	805	a116	72	36	310
11	336	346	102	235	170	120	767	906	a120	69	35	307
12	330	339	106	235	165	118	711	945	a114	68	34	307
13	326	320	104	*235	160	130	825	906	a104	73	34	316
14	323	295	102	230	160	140	*885	870	a98	72	34	343
15	323	270	*100	225	155	140	825	815	a96	70	34	411
16	326	246	98	220	155	145	753	684	101	67	34	229
17	343	223	98	215	150	155	684	575	136	64	35	131
18	336	205	220	215	145	165	643	519	152	60	37	105
19	333	186	290	210	145	180	643	478	159	56	35	89
20	323	177	280	205	140	*195	674	438	159	58	34	161
21	317	166	270	205	145	205	702	374	169	63	34	291
22	307	166	270	200	150	200	720	367	197	64	34	340
23	301	157	260	200	*160	180	767	385	209	60	33	320
24	298	155	260	200	160	155	900	382	236	56	35	313
25	295	150	260	200	150	185	1,020	367	247	53	34	307
26	298	160	245	205	140	215	1,160	a353	264	50	34	304
27	421	188	250	220	135	249	1,250	a310	282	55	34	307
28	267	192	260	240	135	273	1,220	a250	231	68	33	382
29	273	170	260	270	135	280	1,140	a155	193	82	33	430
30	279	155	250	280	-	270	1,070	a104	184	96	34	434
31	288	-	250	270	-	264	-	a135	-	208	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	10,308	421	267	333	-	-
November	7,065	346	150	236	-	-
December	5,522	290	98	178	-	-
Calendar year 1943	140,014	1,830	66	384	2.59	35.20
January	7,170	280	200	231	-	-
February	5,010	260	135	173	-	-
March	5,148	280	106	166	-	-
April	19,966	1,250	188	666	-	-
May	19,360	1,020	104	625	-	-
June	4,333	282	74	144	-	-
July	2,590	208	50	83.5	-	-
August	1,348	142	33	43.5	-	-
September	7,977	434	34	266	-	-
Water year 1943-44	95,797	1,250	33	262	1.77	24.07

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage and records for Middle Branch Moose River at Old Forge and Moose River at McKeever.
Note.- Stage-discharge relation affected by ice Nov. 24-26, 29, 30, Dec. 6-8, Dec. 11 to Mar. 26, Mar. 29, Apr. 2-6 (no gage-height record Dec. 24 to Jan. 8; doubtful gage-height record Dec. 14-19, 23, Jan. 9-13, Feb. 2-5, 7-22).
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Independence River at Donnattsburg, N. Y.

Location.- Wire-weight gage, lat. 43°44'50", long. 75°20'05", at highway bridge at Donnattsburg, Lewis County, 1¼ miles downstream from Chase Lake Outlet and 5 miles above mouth.

Drainage area.- 91.7 square miles.

Records available.- July 1942 to September 1944. December 1927 to June 1942 at site 3½ miles upstream, published as Independence River at Sperryville (drainage area, 85 square miles).

Extremes.- Maximum discharge observed during year, 1,970 second-feet Apr. 11 (gage height, 7.3 feet); minimum observed, 20 second-feet Aug. 7, 23 (gage height, 2.90 feet).

1942-44: Maximum discharge observed, that of Apr. 11, 1944; maximum gage height observed, 8.05 feet Jan. 2, 1943 (ice jam); minimum discharge observed, that of Aug. 7, 23, 1944.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read twice daily.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 10				Apr. 10 to Sept. 30					
3.0	31	3.9	179	2.8	14	3.6	112	5.5	792
3.1	40	4.2	264	2.9	20	3.8	155	6.0	1,060
3.2	50	4.6	400	3.0	28	4.1	234	7.1	1,810
3.4	75	5.0	560	3.2	48	4.5	364		
3.6	111	5.7	895	3.4	76	5.0	560		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	354	96	68	140	60	264	691	70	42	42	24
2	51	249	92	64	135	58	237	624	64	41	32	23
3	50	220	92	60	*140	56	205	513	67	36	31	22
4	50	205	94	58	124	56	192	438	58	33	28	22
5	48	205	96	58	110	54	179	396	56	33	27	22
6	46	192	77	60	98	52	164	342	53	33	26	22
7	44	174	96	62	88	56	155	304	58	31	20	26
8	42	*167	89	62	80	64	179	577	56	30	24	30
9	40	444	92	60	74	62	233	736	51	28	24	37
10	40	664	80	58	68	60	939	512	65	35	23	34
11	40	458	56	*56	64	58	1,650	438	120	32	22	32
12	38	289	*64	56	60	60	*1,500	330	106	31	24	26
13	36	220	78	54	58	71	1,100	280	73	41	24	28
14	38	192	*74	54	56	86	813	275	60	54	26	32
15	40	167	66	52	54	90	632	240	53	44	24	162
16	46	155	68	52	54	92	546	205	72	34	23	339
17	67	119	66	50	56	105	541	179	83	31	24	210
18	98	124	68	50	54	122	590	161	74	28	32	110
19	92	128	70	49	52	155	680	142	78	28	26	78
20	75	128	68	49	52	150	847	125	101	36	25	67
21	67	128	66	50	54	*139	1,010	116	112	44	24	70
22	65	128	64	52	56	135	861	146	112	44	22	153
23	60	124	62	52	56	137	840	243	97	39	20	184
24	64	116	60	54	56	167	1,170	200	114	32	25	148
25	64	106	58	54	*60	202	1,810	160	192	32	26	83
26	58	107	60	56	58	265	1,350	129	148	29	26	67
27	334	113	66	72	54	319	1,110	116	102	36	25	60
28	743	115	78	102	59	346	898	99	74	49	23	72
29	728	104	88	132	59	382	766	90	61	52	23	214
30	884	96	80	167	-	358	686	93	52	48	22	280
31	578	-	74	150	-	304	-	76	-	48	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,670	884	36	151	1.65	1.89
November	5,991	664	96	200	2.18	2.43
December	2,338	96	56	75.4	.822	.95
Calendar year 1943	81,062	1,300	36	222	2.42	32.88
January	2,073	167	49	66.9	.730	.94
February	2,129	140	52	73.4	.800	.86
March	4,321	382	52	139	1.52	1.75
April	22,147	1,810	155	738	8.05	8.98
May	8,976	736	76	290	3.16	3.64
June	2,482	192	51	82.7	.902	1.01
July	1,154	54	28	37.2	.406	.47
August	786	42	20	25.4	.277	.32
September	2,677	339	22	89.2	.973	1.09
Water year 1943-44	59,744	1,810	20	163	1.78	24.23

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 24, 25, Nov. 29 to Dec. 2, Dec. 11 to Jan. 22, Jan. 25, Jan. 31 to Feb. 5, Feb. 7-23, 25, 26, Mar. 1-11, 14, 19, 20, 22.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Stillwater Reservoir near Beaver River, N. Y.

Location.- Float-tape gage, lat. 43°53'50", long. 75°03'05", at Stillwater Dam, 7½ miles west of Beaver River post office, Herkimer County. Datum of gage is at mean sea level, adjustment of 1912.

Drainage area.- 172 square miles.

Records available.- February 1925 to September 1944.

Extremes.- Maximum elevation during year, 1,679.43 feet May 9, 22 (contents, 4,661,000,000 cubic feet); minimum, 1,656.06 feet Mar. 17 (contents, 336,000,000 cubic feet).
1925-44: Maximum elevation, 1,679.50 feet May 12, 1943 (contents, 4,681,000,000 cubic feet); minimum since first filling, 1,644.80 feet Mar. 25-27, 1940.

Remarks.- Records good. Reservoir originally formed about 1885; enlarged at various times and in 1924 enlarged to a usable capacity of 4,623,000,000 cubic feet between elevations 1,650.3 feet and 1,679.3 feet (high flow line) above mean sea level. Elevation of gate sill of lowest outlet, 1,642.3 feet. Capacity below elevation 1,650.3 feet, about 90,000,000 cubic feet. Reservoir is used to regulate flow of Beaver and Black Rivers for control of floods, for power development, and for general welfare of the public. Records of contents given herein represent those above elevation 1,650.3 feet. Daily observations are made about 8 a.m.

Cooperation.- Records furnished by Board of Black River Regulating District.

Elevation, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68.55	64.99	67.25	63.94	61.57	59.42	59.67	75.98	79.22	77.32	73.33	67.14
2	68.35	65.18	67.17	64.01	61.61	59.22	59.93	76.56	79.15	77.23	73.17	66.91
3	68.15	65.37	67.09	64.08	61.63	59.03	60.17	77.07	79.07	77.13	73.05	66.77
4	67.93	65.52	67.01	64.02	61.65	58.86	60.38	77.56	79.00	77.05	72.88	66.77
5	67.71	65.69	66.91	63.82	61.66	58.64	60.57	78.04	78.90	76.96	72.71	66.60
6	67.48	65.83	66.82	63.70	61.66	58.44	60.75	78.38	78.80	76.86	72.53	66.42
7	67.25	65.97	66.76	63.58	61.67	58.22	60.92	78.69	78.68	76.75	72.39	66.21
8	67.04	65.98	66.67	63.45	61.66	58.05	61.10	79.07	78.57	76.64	72.20	65.98
9	66.81	66.20	66.57	63.31	61.64	57.87	61.30	79.41	78.46	76.53	72.01	65.87
10	66.60	66.81	66.48	63.16	61.63	57.66	61.82	79.42	78.40	76.48	71.81	65.71
11	66.34	66.91	66.40	63.02	61.60	57.47	62.87	79.31	78.38	76.37	71.61	65.54
12	66.10	67.13	66.30	62.91	61.57	57.20	63.96	79.30	78.35	76.26	71.39	65.37
13	65.87	67.30	66.21	62.74	61.54	56.92	64.77	79.30	78.26	76.17	71.23	65.21
14	65.62	67.46	66.05	62.61	61.54	56.68	65.39	79.31	78.14	76.04	71.03	65.04
15	65.40	67.62	65.90	62.45	61.50	56.42	65.88	79.31	77.99	75.88	70.83	65.04
16	65.20	67.67	65.72	62.28	61.43	56.19	66.32	79.30	77.88	75.70	70.63	65.28
17	65.01	67.68	65.53	62.15	61.33	56.07	66.78	79.25	77.80	75.55	70.42	65.39
18	64.84	67.69	65.38	62.04	61.27	56.36	67.21	79.25	77.69	75.36	70.28	65.43
19	64.64	67.69	65.15	61.80	61.18	56.59	67.64	79.23	77.60	75.20	70.08	65.37
20	64.41	67.69	65.04	61.65	61.08	56.82	68.12	79.23	77.51	75.05	69.85	65.32
21	64.21	67.69	64.89	61.50	60.97	57.01	68.70	79.29	77.42	74.93	69.62	65.26
22	63.99	67.75	64.74	61.36	60.82	57.20	69.26	79.41	77.33	74.78	69.39	65.36
23	63.78	67.77	64.53	61.21	60.63	57.35	69.81	79.35	77.24	74.61	69.16	65.53
24	63.56	67.73	64.34	61.08	60.50	57.33	70.50	79.35	77.29	74.46	68.97	65.66
25	63.34	67.66	64.25	60.93	60.33	57.25	71.57	79.35	77.45	74.27	68.77	65.76
26	63.12	67.59	64.33	60.78	60.14	57.56	72.51	79.32	77.50	74.12	68.54	65.74
27	63.07	67.52	64.41	60.66	59.94	57.95	73.32	79.31	77.52	74.02	68.31	65.71
28	63.43	67.48	64.35	60.85	59.78	58.38	74.05	79.30	77.52	73.91	68.08	65.66
29	63.74	67.41	64.16	61.04	58.60	58.73	74.65	79.27	77.51	73.76	67.84	65.71
30	64.38	67.33	64.00	61.25	-	59.08	75.25	79.27	77.42	73.64	67.60	65.83
31	64.75	-	63.96	61.45	-	59.39	-	79.27	-	73.49	67.38	-

Note.- Add 1,600 feet to obtain elevations above mean sea level.

Monthly elevation and contents, water year October 1943 to September 1944

Date	Elevation (feet)†	Contents (millions of cubic feet)	Change in contents during month (equivalent, second-feet)
Sept.30	1,658.62	2,068	-
Oct. 31	1,664.91	1,414	-244
Nov. 30	1,667.28	1,818	+156
Dec. 31	1,663.93	1,260	-208
Calendar year 1943	-	-	-52.0
Jan. 31	1,661.53	921	-127
Feb. 29	1,659.48	672	-99.4
Mar. 31	1,659.58	683	+4.11
Apr. 30	1,675.74	3,652	+1,145
May 31	1,679.24	4,606	+356
June 30	1,677.35	4,074	-205
July 31	1,673.38	3,077	-372
Aug. 31	1,667.22	1,808	-474
Sept.30	1,665.84	1,567	-93.0
Water year 1943-44	-	-	-15.8

† Reservoir elevations at midnight obtained by interpolation.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Beaver River below Stillwater Dam, near Beaver River, N. Y.

Location.- Float-tape gage, lat. 43°53'50", long. 75°03'05", at outlet of Stillwater Reservoir, 7½ miles west of Beaver River post office, Herkimer County.

Drainage area.- 172 square miles.

Records available.- May 1908 to September 1944.

Average discharge.- 36 years, 360 second-feet (unadjusted).

Extremes (regulated).- Maximum daily discharge during year, 1,390 second-feet May 10; minimum daily, 11 second-feet Mar. 18-22.
1908-44: Maximum discharge, 3,700 second-feet May 3, 1926; practically no flow at times when gates in dam are closed.

Remarks.- Records good. Flow regulated by Stillwater Reservoir (see preceding page). Discharge determined from ratings for gates and spillway of Stillwater Dam. Gage read once daily.

Cooperation.- Records of gate openings and reservoir elevations furnished by Board of Black River Regulating District.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	605	14	396	13	204	400	12	16	414	421	549	573
2	600	14	396	13	204	400	12	17	490	419	547	434
3	598	14	394	265	204	397	12	17	429	368	578	14
4	597	14	394	399	204	395	12	19	308	282	600	359
5	594	14	394	397	204	394	13	21	488	419	597	529
6	589	14	392	396	204	389	13	22	488	419	597	528
7	588	183	392	396	204	387	13	24	485	418	594	525
8	585	266	390	393	204	384	13	120	484	418	592	473
9	582	126	390	393	204	382	13	802	482	418	591	426
10	579	14	388	390	204	379	13	1,390	402	414	588	424
11	576	14	388	390	204	421	13	1,070	195	414	586	423
12	571	14	388	390	204	445	13	809	349	464	583	420
13	570	14	464	387	204	442	14	681	528	574	581	420
14	567	14	514	387	283	434	14	643	524	572	578	417
15	563	189	514	386	324	431	14	643	524	572	575	417
16	562	276	510	384	322	425	14	642	523	569	575	318
17	559	276	510	381	322	179	14	550	522	569	570	90
18	558	276	506	381	322	11	14	392	520	567	570	320
19	554	276	502	379	321	11	14	344	520	564	591	320
20	551	276	502	377	319	11	14	183	519	564	607	320
21	548	276	502	377	349	11	15	36	516	564	603	320
22	545	276	497	375	420	11	15	484	516	562	601	156
23	542	332	497	373	418	242	15	545	354	561	597	14
24	541	400	284	371	416	388	15	357	190	557	597	14
25	536	400	13	371	413	159	15	357	190	557	594	176
26	533	400	13	368	410	12	16	347	192	554	593	283
27	239	400	325	228	408	12	16	345	193	554	589	283
28	13	396	494	13	405	12	16	344	193	554	585	283
29	13	396	422	13	405	12	16	233	333	554	585	283
30	13	396	343	13	-	12	16	177	421	552	581	284
31	14	-	255	128	-	12	-	274	-	549	577	-

Month	Observed					Adjusted†		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	15,085	605	13	487		243	1.41	1.63
November	5,970	400	14	199		355	2.06	2.30
December	12,369	514	13	399		191	1.11	1.28
Calendar year 1943	182,522	1,990	13	500		448	2.60	35.37
January	9,527	399	13	307		180	1.05	1.21
February	8,509	420	204	293		194	1.13	1.22
March	7,600	445	11	245		249	1.45	1.67
April	419	16	12	14.0		1,159	6.74	7.52
May	11,904	1,390	16	384		740	4.30	4.96
June	12,292	528	190	410		205	1.19	1.33
July	15,543	574	282	501		129	.750	.86
August	18,151	607	547	586		112	.651	.75
September	9,846	573	14	328		235	1.37	1.53
Water year 1943-44	127,215	1,390	11	348		332	1.93	26.26

† Adjusted for change in contents in Stillwater Reservoir.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Beaver River at Croghan, N. Y.

Location.- Water-stage recorder, lat. 43°53'50", long. 75°24'15", about 1,000 feet upstream from Black Creek and half a mile west of Croghan, Lewis County.

Drainage area.- 294 square miles.

Records available.- September 1930 to September 1944.

Average discharge.- 14 years, 548 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,980 second-feet Apr. 26 (gage height, 4.80 feet); minimum, 68 second-feet Oct. 3 (gage height, 1.22 feet); minimum daily, 79 second-feet Dec. 26.

1930-44: Maximum discharge, 4,310 second-feet May 13, 1943 (gage height, 6.47 feet); minimum, about 18 second-feet Feb. 24, 1936 (gage height, 0.89 foot); minimum daily, 35 second-feet May 13, 1934.

Remarks.- Records excellent except those for period of backwater from tree on control, which are good. Flow almost completely regulated by Stillwater Reservoir (see p. 174). Between Stillwater Dam and this station flow is further regulated by operation of nine power-plant ponds. Diurnal fluctuation at low and medium stages.

Rating table, water year 1943-44, except period of backwater from tree on control (gage height, in feet, and discharge, in second-feet)

1.2	65	1.8	196	3.2	842
1.3	81	2.1	290	3.6	1,120
1.4	100	2.4	406	4.0	1,430
1.6	144	2.8	600	4.5	1,880

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	681	739	686	425	466	766	310	702	415	508	663	586
2	673	785	694	135	422	728	119	700	534	157	673	596
3	228	558	656	323	388	528	283	718	622	412	661	189
4	471	431	653	436	369	511	310	913	184	163	670	318
5	628	300	356	443	264	210	299	928	718	348	672	541
6	671	225	587	490	131	526	292	920	686	676	223	564
7	667	90	602	459	244	688	292	958	671	666	652	579
8	667	233	598	431	335	667	284	1,170	675	552	675	542
9	656	641	584	142	386	679	136	1,060	684	162	666	523
10	311	630	613	506	381	681	680	1,080	718	454	650	385
11	542	493	566	464	386	679	1,010	1,050	693	634	524	493
12	506	451	270	533	395	203	1,430	997	704	633	497	501
13	512	443	515	496	188	725	1,300	948	681	571	354	499
14	589	130	717	491	437	730	1,140	264	702	622	700	506
15	682	287	500	443	426	713	841	569	673	668	612	510
16	655	412	610	133	399	699	731	762	692	125	595	515
17	232	482	685	394	389	787	789	673	689	541	674	229
18	618	459	700	455	413	744	829	635	632	608	669	554
19	702	484	188	448	400	234	797	699	735	658	650	444
20	682	458	410	446	566	416	798	700	551	675	511	403
21	697	134	569	476	594	375	834	160	519	661	583	c380
22	680	387	524	446	543	307	857	524	520	691	571	c540
23	667	781	556	132	539	351	873	549	482	195	566	c540
24	170	780	326	350	529	481	987	523	470	466	564	c195
25	575	506	92	440	482	416	1,300	522	122	631	592	c360
26	674	404	79	442	455	315	1,880	779	210	668	578	c400
27	1,110	670	367	518	418	324	1,480	702	260	687	522	c390
28	921	336	484	542	555	289	1,370	231	258	691	573	c390
29	984	588	505	294	604	291	1,140	525	277	725	575	c390
30	982	765	688	133	-	288	981	412	430	183	571	c420
31	820	-	604	318	-	242	-	370	-	561	577	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	19,653	1,110	170	634	2.16	2.49
November	14,082	785	90	469	1.60	1.78
December	15,984	717	79	516	1.76	2.02
Calendar year 1943	287,818	4,060	79	789	2.68	36.40
January	12,184	542	132	393	1.34	1.54
February	12,154	604	131	419	1.43	1.54
March	15,593	787	203	503	1.71	1.97
April	24,372	1,880	119	812	2.76	3.08
May	21,743	1,170	160	701	2.38	2.75
June	16,207	735	122	540	1.84	2.05
July	15,992	725	125	516	1.76	2.02
August	18,263	700	223	589	2.00	2.31
September	13,482	596	189	449	1.53	1.71
Water year 1943-44	199,709	1,880	79	546	1.86	25.26

c Backwater from tree on control.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Deer River at Copenhagen, N. Y.

Location.- Water-stage recorder, lat. 43°53'55", long. 75°39'40", at power plant half a mile northeast of Copenhagen, Lewis County. Datum of gage is 963.41 feet above mean sea level, datum of 1929.

Drainage area.- 89 square miles.

Records available.- September 1929 to September 1944.

Average discharge.- 15 years, 212 second-feet.

Extremes.- Maximum discharge during year, 3,420 second-feet Apr. 10 (gage height, 6.53 feet); minimum, 1.6 second-feet (regulated) Aug. 16, 17 (gage height, 0.265 foot); minimum daily, 2.1 second-feet (regulated) Aug. 6, 9.

1929-44: Maximum discharge, 14,400 second-feet Sept. 1, 1941 (gage height, 12.08 feet), by computation of flow over dam; minimum, 0.7 second-foot (regulated) Aug. 12, 1940 (gage height, 0.17 foot); minimum daily, 0.8 second-foot (regulated) July 22 to Aug. 2, 1933.

Remarks.- Records good except those for periods of ice effect, which are fair. Diurnal fluctuation at low and medium flow caused by power plant.

Discharge, in second feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	225	149	77	179	72	331	377	22	16	6.2	5.1
2	22	197	146	64	*145	70	377	337	22	12	7.3	5.2
3	25	272	193	58	160	65	360	277	22	8.5	5.1	4.5
4	20	261	179	54	141	63	312	220	24	11	5.7	6.2
5	17	249	151	53	118	61	280	185	20	11	4.9	6.5
6	15	215	105	57	125	58	255	155	18	11	2.1	11
7	14	176	268	62	116	59	278	316	18	9.7	4.0	22
8	16	318	199	58	99	74	446	828	16	8.2	2.2	21
9	16	*1,680	292	52	85	84	931	410	15	8.1	2.1	22
10	14	674	224	46	76	91	2,720	384	35	7.4	2.3	14
11	15	381	68	44	69	91	1,400	317	94	8.4	7.6	11
12	14	249	88	*43	64	93	1,210	203	52	9.0	7.9	10
13	12	210	*94	42	60	167	882	168	31	11	8.7	10
14	11	183	84	41	58	233	673	227	21	12	7.9	8.1
15	11	165	74	40	57	274	495	164	19	9.6	5.9	25
16	33	154	76	39	55	251	638	122	24	8.1	5.4	31
17	327	117	76	37	58	387	1,030	79	43	7.4	5.8	18
18	174	149	80	36	57	432	976	65	39	6.9	24	14
19	111	235	84	36	56	346	946	56	34	4.4	14	13
20	82	319	82	36	54	328	1,010	55	48	4.1	7.1	12
21	64	235	78	39	56	282	1,020	55	35	16	6.9	12
22	55	153	76	40	58	239	708	82	30	11	6.5	126
23	49	159	72	43	58	210	750	120	26	7.0	5.7	45
24	54	167	70	44	58	320	1,750	74	68	7.3	5.2	24
25	50	168	70	44	61	529	1,680	56	136	5.0	4.7	16
26	39	182	74	68	*60	998	1,100	50	72	4.9	4.8	16
27	942	296	100	250	58	829	703	43	39	15	5.8	16
28	542	300	152	460	63	757	551	37	24	16	5.7	29
29	1,550	186	166	387	70	672	443	31	18	12	6.5	132
30	663	143	112	221	-	500	402	27	16	8.4	6.4	a53
31	358	-	84	209	-	397	-	24	-	8.2	7.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,330	1,550	11	172	1.93	2.23
November	8,418	1,680	117	281	3.16	3.52
December	3,766	292	68	121	1.36	1.57
Calendar year 1943	108,602.5	2,220	5.0	298	3.35	45.37
January	2,780	460	36	89.7	1.01	1.16
February	2,374	179	54	81.9	.920	.99
March	9,032	998	58	291	3.27	3.77
April	24,657	2,720	255	822	9.24	10.30
May	5,544	828	24	179	2.01	2.32
June	1,081	136	15	36.0	.404	.45
July	294.6	16	4.1	9.50	.107	.12
August	201.5	24	2.1	6.50	.073	.08
September	738.6	132	4.5	24.6	.276	.31
Water year 1943-44	64,216.7	2,720	2.1	175	1.97	26.82

Peak discharge.- Nov. 9 (4:15 a.m.) 2,510 sec.-ft.; Apr. 10 (8 a.m.) 3,420 sec.-ft.; Apr. 24 (9 p.m.) 2,540 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage and pattern for normal recession.

Note.- Stage-discharge relation affected by ice Dec. 12-26, Jan. 8-17, 26-28, Feb. 19-21.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

East Branch Oswegatchie River at Cranberry Lake, N. Y.

Location.- Water-stage recorder, lat. 44°13'15", long. 74°51'00", in village of Cranberry Lake, St. Lawrence County, 900 feet downstream from dam at outlet of Cranberry Lake.

Drainage area.- 144 square miles.

Records available.- May 1923 to September 1944.

Average discharge.- 21 years, 289 second-feet (unadjusted).

Extremes (regulated).- Maximum discharge during year, 995 second-feet May 9 (gage height, 6.47 feet); minimum, 46 second-feet Sept. 1 (gage height, 3.52 feet); minimum daily, 58 second-feet Apr. 16.

1923-44: Maximum daily discharge, 1,910 second-feet May 13, 1943; minimum daily, about 5 second-feet Apr. 9-16, 1931.

Remarks.- Records excellent. Flow completely regulated by Cranberry Lake Dam.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	104	280	320	324	371	190	228	185	203	258	189
2	350	104	277	320	327	371	192	577	179	203	258	242
3	346	104	277	320	327	393	192	772	163	200	255	242
4	346	104	277	317	327	415	192	798	152	200	255	242
5	346	104	277	317	327	415	192	809	156	213	255	242
6	343	105	277	314	327	411	192	820	148	266	255	242
7	343	106	277	314	344	407	192	804	141	266	252	242
8	343	106	277	327	357	404	192	917	129	266	252	240
9	343	100	277	344	357	404	197	976	121	266	252	240
10	340	71	280	344	357	400	120	976	131	266	252	230
11	340	71	280	344	357	400	72	950	146	266	252	173
12	336	72	277	344	357	415	74	796	196	266	252	173
13	336	71	280	344	354	433	75	710	268	233	250	173
14	333	71	309	344	354	430	76	601	258	212	250	171
15	333	71	333	344	350	426	68	427	248	212	250	171
16	277	72	333	344	347	422	58	274	240	212	248	159
17	211	72	330	340	368	422	59	177	230	252	248	148
18	211	203	330	340	396	418	60	177	223	271	248	148
19	211	286	330	337	398	415	61	185	218	271	248	148
20	211	286	330	333	393	411	62	185	216	271	245	146
21	211	286	330	333	393	430	64	183	214	271	245	146
22	211	286	330	330	389	453	65	203	214	271	242	146
23	211	286	330	330	389	449	66	235	214	268	242	146
24	208	286	330	330	386	445	68	252	216	266	240	144
25	208	283	327	327	386	456	71	287	221	263	240	134
26	206	283	327	324	382	488	73	349	223	263	240	90
27	167	286	324	324	378	468	75	345	225	260	240	89
28	128	286	324	324	375	476	78	346	225	260	238	90
29	130	283	324	320	375	381	80	242	221	260	238	90
30	115	283	324	320	-	190	82	214	209	260	235	90
31	102	-	320	324	-	190	-	194	-	260	235	-

Month	Observed					Adjusted for change in contents†		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	8,146	350	102	263		227	1.58	1.82
November	5,131	286	71	171		292	2.03	2.26
December	9,498	333	277	306		177	1.23	1.42
Calendar year 1943	132,083	1,910	71	362		364	2.53	34.26
January	10,237	344	314	330		184	1.28	1.47
February	10,499	396	324	362		185	1.28	1.39
March	12,609	488	190	407		251	1.74	2.01
April	3,238	197	58	108		836	5.81	6.48
May	15,009	976	177	484		540	3.75	4.32
June	5,930	268	121	198		149	1.03	1.15
July	7,717	271	200	249		67.9	.472	.54
August	7,670	258	235	247		47.7	.331	.38
September	5,126	242	89	171		171	1.19	1.32
Water year 1943-44	100,810	976	58	275		260	1.81	24.56

† Adjusted for change in contents in Cranberry Lake Reservoir.

Note.- Elevation of surface of Cranberry Lake Reservoir, 1,484.57 ft. at midnight Sept. 30, 1943; 1,482.86 ft. at midnight Sept. 30, 1944; 1,483.87 ft. at midnight Dec. 31, 1942; 1,484.07 ft. at midnight Dec. 31, 1943.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

East Branch Oswegatchie River near Oswegatchie, N. Y.

Location.- Water-stage recorder, lat. 44°13'25", long. 75°04'35", at Flat Rock hydro-electric plant of Central New York Power Corporation (formerly Northern New York Utilities), 2¾ miles north of Oswegatchie, St. Lawrence County.
Drainage area.- 263 square miles.
Records available.- October 1924 to September 1944.
Average discharge.- 19 years (1925-44), 513 second-feet (unadjusted).
Extremes (regulated).- Maximum discharge during year, 2,180 second-feet Apr. 25 (gage height, 5.51 feet); minimum, 7.4 second-feet June 30 (gage height, 0.93 foot); minimum daily, 62 second-feet July 4.
1924-44: Maximum discharge, 4,010 second-feet Apr. 6, 1928 (gage height, 7.1 feet), from rating curve extended above 1,900 second-feet by logarithmic plotting; minimum, probably less than 1 second-foot during complete shut-down of power plant; minimum daily, 1 second-foot July 25, 1926.
Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are good. Large diurnal fluctuation at low and medium flow caused by power plant; seasonal flow partly regulated by storage in Cranberry Lake (see preceding page).

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-30

2.5	213	3.5	587
2.6	240	4.0	873
2.8	300	4.8	1,500
3.1	406		

Oct. 31 to Sept. 30

1.6	53	2.2	144	3.5	583
1.7	64	2.4	188	4.0	870
1.8	77	2.7	269	4.5	1,220
2.0	108	3.1	405	5.3	1,950

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	554	541	454	429	601	*475	696	670	422	313	313	251
2	575	a345	442	433	588	576	638	1,020	347	256	314	273
3	390	a480	560	420	563	482	420	1,280	359	152	335	217
4	400	a365	535	410	544	627	342	1,010	331	62	340	236
5	383	a335	533	450	534	433	361	937	330	406	497	236
6	376	a380	590	505	520	345	355	920	355	465	319	242
7	393	*a345	509	405	525	455	421	574	269	391	261	270
8	399	358	512	389	533	620	*545	1,410	233	439	333	443
9	393	634	491	434	536	640	485	1,580	230	278	383	375
10	229	558	502	569	537	459	1,230	1,540	192	330	324	285
11	389	570	488	475	522	470	1,620	1,550	227	328	402	291
12	381	550	500	426	444	425	1,560	1,480	248	394	337	245
13	381	472	460	475	449	486	1,200	1,320	426	601	331	227
14	315	424	550	414	475	532	433	1,070	441	375	292	261
15	592	471	*440	401	465	478	767	944	286	340	320	228
16	527	368	460	380	370	611	355	969	322	340	381	395
17	398	360	516	524	332	766	429	903	349	328	327	223
18	387	316	504	500	520	851	936	885	323	388	334	229
19	287	323	401	390	447	710	978	313	341	412	329	392
20	283	344	427	375	466	822	945	216	324	352	333	219
21	284	396	383	580	464	602	1,090	122	319	339	330	328
22	268	439	424	443	390	528	1,310	265	273	350	282	460
23	368	448	383	389	415	618	1,250	671	286	334	284	363
24	288	429	296	385	455	637	1,200	491	558	326	266	330
25	276	428	320	420	485	622	1,410	823	285	327	288	372
26	336	448	270	365	475	880	1,930	668	569	347	238	320
27	599	436	342	666	466	1,010	1,640	513	349	344	239	326
28	822	546	315	700	476	800	1,530	304	424	334	235	275
29	943	423	375	570	485	1,100	727	335	286	328	242	278
30	1,410	437	374	660	-	1,100	576	275	361	325	237	220
31	840	-	420	521	-	765	-	439	-	317	237	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	14,466	1,410	229	467	-	-
November	12,969	634	316	432	-	-
December	13,776	590	270	444	-	-
Calendar year 1943	236,181	3,000	190	647	2.46	33.40
January	14,503	700	365	468	-	-
February	14,082	601	332	486	-	-
March	19,925	1,100	345	643	-	-
April	27,379	1,930	342	913	-	-
May	25,497	1,580	122	822	-	-
June	10,065	569	192	336	-	-
July	10,621	601	62	343	-	-
August	9,688	497	235	313	-	-
September	8,810	460	217	294	-	-
Water year 1943-44	181,781	1,930	62	497	1.89	25.71

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of power-plant records of output.
Note.- Stage-discharge relation affected by ice Dec. 12-15, 25, 26, 28, Jan. 3-5, 7, 13, 16, 18-20, 24, 25, 28, 30, Feb. 14, 15, 18, 22, 23, 25, Mar. 7, 12 (doubtful gage-height record Dec. 13, 14).
Time basis. Eastern war time. To convert war time to standard time, subtract 1 hour.

Oswegatchie River near Heuvelton, N. Y.

Location.- Water-stage recorder, lat. 44°36'00", long. 75°22'45", 2½ miles upstream from Heuvelton, St. Lawrence County.
Drainage area.- 973 square miles.
Records available.- June 1916 to September 1944.
Average discharge.- 28 years, 1,661 second-feet (unadjusted).
Extremes.- Maximum discharge during year, 6,740 second-feet Apr. 28 (gage height, 5.59 feet); minimum, 230 second-feet Sept. 6 (gage height, 0.81 foot).
1916-44: Maximum discharge, 15,600 second-feet Jan. 11, 1930 (gage height, 9.1 feet); minimum, 200 second-feet (regulated) Aug. 18, 1934 (gage height, 0.65 foot).
Remarks.- Records excellent except those for periods of ice effect, which are good, or those for periods of no gage-height record, which are fair. Seasonal flow slightly regulated by Cranberry Lake; slight diurnal fluctuation at low and medium flow caused by power plants. During high stages on Grass River, part of flow of that stream may pass through Upper Lake, Indian Creek, and Lower Lake and enter Oswegatchie River at Rensselaer Falls, 4½ miles above station.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 14				Apr. 15 to Sept. 30			
1.2	428	3.0	2,280	0.8	225	1.4	579
1.4	562	4.0	3,760	.9	270	1.7	818
1.7	804	5.0	5,560	1.0	321	2.0	1,090
2.0	1,090	5.6	6,760	1.2	440		
2.5	1,660						

Note.- Same as preceding table above 2.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.
1	541	a4,000	a1,550	780	1,500	1,020	4,810	4,050	785	663	487	355
2	669	a3,500	a1,450	740	1,400	*942	4,310	3,220	768	572	494	338
3	727	a2,900	a1,400	700	1,250	971	3,540	2,890	793	565	507	316
4	727	a2,350	a1,350	760	1,160	900	2,960	3,020	727	536	500	311
5	630	a1,950	a1,350	710	1,080	860	2,510	2,950	719	409	421	296
6	592	a1,650	1,290	694	1,270	886	2,100	2,520	695	372	415	248
7	555	a1,450	1,250	653	1,360	904	1,830	2,550	679	280	447	327
8	527	*a1,410	1,290	680	1,160	1,060	1,680	2,370	647	428	453	332
9	506	1,800	1,520	660	1,040	980	*1,740	2,880	625	543	467	338
10	499	2,770	1,550	622	940	960	2,500	3,660	572	550	453	410
11	499	3,120	1,400	630	860	1,040	4,340	4,050	557	521	447	507
12	486	3,190	1,220	700	840	1,090	5,670	4,030	594	500	409	500
13	456	2,950	1,120	700	800	2,610	6,270	3,790	663	467	434	421
14	479	2,690	980	678	720	3,790	6,470	3,360	679	480	440	403
15	447	2,370	1,020	669	680	2,890	6,050	2,920	565	587	460	428
16	520	1,980	*1,050	660	760	2,140	5,100	2,480	691	609	434	384
17	637	1,800	1,040	637	795	2,060	4,410	2,240	679	514	421	367
18	686	1,550	971	645	752	2,650	4,070	2,060	572	521	440	526
19	735	1,340	942	661	653	2,500	3,880	1,830	572	467	447	602
20	a740	1,360	962	744	607	2,250	3,960	1,680	543	480	447	594
21	a640	1,460	960	686	761	2,000	3,950	1,200	671	500	409	550
22	a560	1,620	940	710	778	1,890	3,960	950	647	521	384	500
23	a540	1,620	860	831	761	1,770	4,120	905	543	507	384	507
24	a540	1,550	760	*813	804	2,230	4,240	1,010	536	467	434	664
25	a580	1,450	678	718	761	3,040	4,670	1,640	579	480	415	647
26	a600	1,400	614	637	831	3,810	5,460	1,970	727	453	421	663
27	a1,160	1,460	630	1,410	850	4,450	6,390	1,910	959	434	397	760
28	a2,250	1,740	702	2,450	813	4,830	6,680	1,620	1,090	487	361	671
29	a3,100	1,800	800	2,340	971	5,050	6,270	1,350	959	474	296	594
30	a3,700	a1,700	820	1,950	-	4,990	5,330	1,020	727	440	311	557
31	a4,000	-	800	1,700	-	4,940	-	862	-	453	355	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	29,358	4,000	447	947	0.973	1.12
November	61,930	4,000	1,340	2,064	2.12	2.37
December	33,269	1,550	614	1,073	1.10	1.27
Calendar year 1943	748,068	8,960	447	2,050	2.11	28.59
January	27,968	2,450	622	902	.927	1.07
February	26,957	1,500	607	930	.956	1.03
March	71,503	5,050	860	2,307	2.37	2.73
April	129,270	6,680	1,680	4,309	4.43	4.94
May	72,987	4,050	862	2,354	2.42	2.79
June	20,563	1,090	536	685	.704	.79
July	15,280	663	280	493	.507	.58
August	13,190	507	296	425	.437	.50
September	14,116	760	248	471	.484	.54
Water year 1943-44	516,391	6,680	248	1,411	1.45	19.73

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for other stations in Oswegatchie River Basin.
Note.- Stage-discharge relation affected by ice Nov. 24-26, Dec. 7, 10-15, 21-24, Dec. 29 to Jan. 4, Jan. 8, 9, 12, 13, 16, Jan. 30 to Feb. 5, Feb. 9-16, Mar. 4, 5, 9-11, 19, 20.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

West Branch Oswegatchie River near Harrisville, N. Y.

Location.- Water-stage recorder, lat. 44°11'10", long. 75°19'55", at highway bridge, half a mile northeast of Geers Corners and 4 miles downstream from Harrisville, Lewis County. Datum of gage is 738.51 feet above mean sea level, datum of 1929.

Drainage area.- 258 square miles.

Records available.- July 1916 to September 1944.

Average discharge.- 28 years, 508 second-feet.

Extremes.- Maximum discharge during year, 3,280 second-feet Apr. 26 (gage height, 6.55 feet); minimum, 34 second-feet (regulated) Sept. 4 (gage height, 0.98 foot).
1916-44: Maximum discharge, 6,920 second-feet Jan. 9, 1930 (gage height, 9.6 feet), from rating curve extended above 2,400 second-feet; minimum, 25 second-feet Sept. 1, 1934 (gage height, 0.86 foot).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diurnal fluctuations, principally during low flow, caused by pondage for pulp mill at Harrisville.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-30				Oct. 31 to Sept. 30					
1.4	76	2.5	301	0.9	28	1.7	116	4.0	1,060
1.5	88	3.0	498	1.0	35	2.1	192	5.0	1,830
1.7	116	4.0	1,070	1.2	52	2.5	300	6.5	3,230
2.0	170	5.3	2,090	1.4	74	3.0	483		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	1,510	418	215	360	*214	1,000	1,390	257	150	104	52
2	121	1,150	388	205	330	200	915	1,310	234	118	84	35
3	127	902	366	195	310	190	840	1,240	224	119	88	36
4	153	744	356	206	300	185	762	1,160	225	113	101	34
5	140	638	346	188	290	179	659	1,060	219	124	59	53
6	120	557	306	184	335	185	562	980	191	103	57	64
7	112	*479	363	180	326	187	514	896	190	89	57	69
8	96	a430	402	175	276	206	*519	1,080	188	61	100	63
9	78	a600	410	170	250	195	576	1,540	174	62	78	47
10	76	a1,260	414	170	230	185	1,180	1,690	171	77	53	84
11	114	*a1,400	356	168	200	190	2,450	1,540	269	105	57	94
12	92	1,220	326	164	195	198	2,630	1,350	316	98	48	91
13	92	1,020	300	163	185	321	2,290	1,110	263	108	46	75
14	86	821	280	154	192	339	2,040	941	213	147	45	77
15	88	674	*273	158	168	359	1,680	846	184	122	a58	108
16	87	556	274	a160	183	342	1,420	727	171	80	a54	131
17	145	484	242	a150	185	419	1,380	622	161	81	a53	267
18	267	429	266	a155	175	462	1,450	528	147	89	a54	291
19	255	410	243	a160	160	500	1,490	449	163	69	46	225
20	231	425	264	142	175	483	1,580	398	148	74	54	182
21	198	a450	221	142	192	445	1,740	359	149	81	54	139
22	218	a520	225	149	184	418	1,850	405	145	93	58	183
23	178	a500	205	*140	196	395	1,780	665	146	84	60	273
24	194	a460	200	155	181	496	1,850	779	196	54	53	332
25	233	a420	180	151	192	632	2,550	687	414	108	53	308
26	206	a400	190	156	194	967	3,220	581	506	72	39	247
27	494	414	195	268	181	1,340	2,920	510	402	67	49	236
28	1,130	475	225	374	206	1,480	2,360	433	303	82	50	160
29	1,620	466	260	458	214	1,480	1,880	349	234	90	58	191
30	2,020	445	250	420	-	1,350	1,560	294	191	73	54	250
31	1,950	-	230	380	-	1,170	-	258	-	84	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	11,027	2,020	76	356	1.38	1.59
November	20,259	1,510	400	675	2.62	2.92
December	8,974	418	180	289	1.12	1.29
Calendar year 1943	221,398	2,920	76	607	2.35	31.92
January	6,255	458	140	202	.783	.90
February	6,565	360	160	226	.876	.95
March	15,712	1,480	179	507	1.97	2.26
April	47,647	3,220	514	1,588	6.15	6.87
May	26,177	1,690	258	844	3.27	3.77
June	6,794	506	145	226	.876	.98
July	2,877	150	54	92.8	.360	.41
August	1,875	104	39	60.5	.234	.27
September	4,397	332	34	147	.570	.63
Water year 1943-44	158,559	3,220	34	433	1.68	22.84

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of record for Oswegatchie River near Heuvelton.
Note.- Stage-discharge relation affected by ice Dec. 13, 14, Dec. 22 to Jan. 3, Jan. 7-10, Jan. 30 to Feb. 5, Feb. 9-12, 18-20, Mar. 2-4, 9-11, 19.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Grass River at Pyrites, N. Y.

Location.- Water-stage recorder, lat. 44°31'30", long. 75°11'50", 1,000 feet downstream from lower bridge in Pyrites, St. Lawrence County, and half a mile upstream from Harrison Creek.

Drainage area.- 335 square miles.

Records available.- August 1924 to September 1944.

Average discharge.- 20 years, 575 second-feet.

Extremes.- Maximum discharge during year, 5,000 second-feet Apr. 26 (gage height, 9.28 feet); minimum, 70 second-feet Aug. 12 (gage height, 1.20 feet).

1924-44: Maximum discharge, about 8,300 second-feet Nov. 18, 1927 (gage height, 13.0 feet), from rating curve extended above 2,100 second-feet by logarithmic plotting; minimum, 37 second-feet July 15, 1933; minimum daily, 59 second-feet Aug. 29 to Sept. 1, 1934.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 9

1.6	157	3.0	702
1.8	213	4.0	1,200
2.1	312	5.0	1,760
2.5	472	5.5	2,070

Apr. 10 to Sept. 30

1.2	70	2.1	312	6.0	2,440
1.3	88	2.5	472	8.0	3,980
1.4	109	3.0	702	9.2	4,840
1.6	157	4.0	1,200		
1.8	213	5.0	1,760		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	1,240	503	245	360	215	920	1,550	260	170	127	79
2	187	965	468	235	330	*210	900	1,400	277	152	120	77
3	247	955	476	225	310	205	780	1,280	298	140	111	77
4	284	920	446	215	290	200	700	1,170	280	130	118	77
5	251	795	438	210	280	190	640	1,060	247	125	120	81
6	219	683	384	215	330	195	600	980	222	118	109	104
7	196	598	470	225	320	235	579	900	216	114	96	173
8	181	*561	450	215	290	280	612	1,450	216	107	90	160
9	173	*1,040	520	210	260	270	*688	a1,800	213	105	83	181
10	168	1,410	500	205	245	250	1,740	a1,850	210	110	77	179
11	168	1,290	330	200	230	240	2,640	a1,500	310	241	74	157
12	165	1,010	370	195	215	260	2,530	a1,200	380	216	72	132
13	162	840	340	190	205	620	1,960	a1,020	294	216	86	123
14	160	756	320	190	200	560	1,690	a930	232	316	96	123
15	162	654	300	185	195	480	1,440	875	204	260	92	159
16	187	589	*290	185	190	420	1,260	795	196	201	81	432
17	278	480	*280	180	200	600	1,280	688	204	162	75	520
18	450	470	270	180	190	700	1,410	602	210	137	74	400
19	421	485	280	175	185	600	1,490	525	207	120	79	291
20	349	520	270	175	190	560	1,710	476	213	116	92	219
21	327	566	260	180	195	500	2,080	442	219	118	88	184
22	323	635	245	185	200	460	2,190	425	213	132	84	247
23	302	570	230	195	210	480	2,070	507	210	130	79	494
24	291	450	225	200	210	660	2,380	512	277	118	81	380
25	288	494	220	*195	205	780	3,920	490	714	109	83	264
26	270	490	225	215	200	1,060	4,890	503	659	105	92	210
27	654	543	250	400	200	1,250	4,000	429	433	103	90	207
28	1,170	640	310	580	220	1,350	2,800	368	308	107	84	225
29	1,620	538	300	560	220	1,300	2,120	327	238	132	79	241
30	2,060	520	280	480	-	1,200	1,730	294	198	130	75	316
31	1,760	-	260	410	-	1,060	-	274	-	140	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	13,633	2,060	160	440	1.31	1.51
November	21,707	1,410	450	724	2.16	2.41
December	10,510	520	220	339	1.01	1.17
Calendar year 1943	264,050	3,600	160	723	2.16	29.32
January	7,655	580	175	247	.737	.85
February	6,875	360	185	237	.707	.76
March	17,390	1,350	190	561	1.67	1.93
April	53,749	4,890	579	1,792	5.35	5.97
May	26,622	1,850	274	859	2.56	2.96
June	8,358	714	196	279	.833	.93
July	4,580	316	103	148	.442	.51
August	2,782	127	72	89.7	.268	.31
September	6,512	520	77	217	.648	.72
Water year 1943-44	180,373	4,890	72	493	1.47	20.03

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for St. Regis River at Brasher Center.

Note.- Stage-discharge relation affected by ice Nov. 17, 18, 24, 30, Dec. 7 to Apr. 6 (no gage-height record Dec. 11-16; doubtful gage-height record Jan. 1, 2, Feb. 7-12, Mar. 11, 12, 21-23).

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Raquette River at Piercefield, N. Y.

Location.- Water-stage recorder, lat. 44°14'05", long. 74°34'20", half a mile downstream from dam of International Paper Co. and Piercefield, St. Lawrence County.

Drainage area.- 722 square miles.

Records available.- August 1908 to September 1944.

Average discharge.- 36 years, 1,289 second-feet.

Extremes.- Maximum discharge during year, 6,640 second-feet (regulated) May 9 (gage height, 11.13 feet); minimum, 154 second-feet (regulated) Sept. 5 (gage height, 2.62 feet); minimum daily, 156 second-feet (regulated) Sept. 6.
1908-44: Maximum discharge, 8,240 second-feet May 16, 1943 (gage height, 12.09 feet); minimum, about 10 second-feet (regulated) Sept. 2, 1913 (gage height, 0.05 foot); minimum daily, 11 second-feet (regulated) Sept. 2, 1913.

Remarks.- Records excellent except those for period of no gage-height record, which are good. Large diurnal fluctuation in flow for short periods caused by paper mill. Seasonal distribution of flow appreciably modified by natural storage in lakes and ponds above station.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

2.6	151	3.6	362	7.0	2,010
2.7	167	4.0	474	8.0	2,880
2.8	184	4.5	632	10.0	5,130
3.0	221	5.2	916	11.1	6,600
3.3	287	6.0	1,330		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	695	947	1,020	661	676	604	876	5,880	1,400	1,140	920	169
2	664	1,030	982	632	695	584	898	6,030	1,250	1,120	916	275
3	643	1,180	982	566	695	684	898	6,110	1,220	1,100	903	195
4	639	1,200	969	622	695	833	903	6,170	1,200	1,080	838	161
5	628	1,120	960	555	687	771	907	6,280	1,190	992	683	157
6	618	1,130	960	561	698	718	912	6,400	1,150	855	533	156
7	614	1,180	969	561	695	687	912	6,420	1,100	846	509	167
8	555	1,410	951	555	695	661	912	6,520	1,050	838	440	323
9	462	1,540	938	548	683	632	929	6,590	961	829	285	252
10	445	1,710	814	545	604	597	1,060	6,530	730	859	244	238
11	442	1,760	574	684	428	a580	1,250	6,400	726	842	338	250
12	439	1,760	555	956	349	a580	1,420	6,170	746	846	434	176
13	437	1,770	574	916	324	a560	1,560	5,910	746	868	362	181
14	439	1,730	571	868	309	a560	1,700	5,610	742	855	346	206
15	431	1,710	574	821	374	a560	1,840	5,310	734	846	357	252
16	423	1,630	577	783	373	a580	1,990	4,990	820	829	224	225
17	448	1,580	584	742	387	a580	2,140	4,630	1,170	746	229	251
18	448	1,540	587	718	872	580	2,230	4,210	1,110	574	313	280
19	478	1,500	587	687	890	558	2,350	3,880	1,070	512	237	301
20	403	1,400	597	672	833	567	2,500	3,580	950	518	327	311
21	439	1,260	600	687	738	574	2,690	3,340	756	533	439	336
22	448	1,240	600	702	710	571	2,850	3,170	614	548	282	386
23	445	1,090	600	718	706	584	3,080	3,030	608	571	182	409
24	442	881	594	726	691	604	3,500	2,890	668	651	346	425
25	442	925	590	718	676	611	3,970	2,770	746	808	290	437
26	574	969	587	706	661	668	4,430	2,650	982	890	261	445
27	600	1,030	597	734	646	710	4,820	2,520	1,090	916	337	442
28	584	1,000	600	746	636	766	5,140	2,380	1,200	916	351	448
29	622	1,030	590	726	625	795	5,430	2,250	1,190	916	376	471
30	702	1,030	584	679	-	838	5,690	2,130	1,160	916	336	488
31	829	-	633	676	-	855	-	1,870	-	912	243	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	16,478	829	403	532	0.737	0.85
November	39,282	1,770	881	1,309	1.81	2.02
December	21,900	1,020	555	706	.978	1.13
Calendar year 1943	578,570	8,140	403	1,585	2.20	29.81
January	21,471	956	545	693	.960	1.11
February	18,051	890	309	622	.861	.93
March	20,052	855	558	647	.896	1.03
April	69,787	5,690	876	2,326	3.22	3.59
May	142,620	6,590	1,870	4,601	6.37	7.35
June	29,079	1,400	608	969	1.34	1.50
July	25,672	1,140	512	828	1.15	1.32
August	12,881	920	182	416	.576	.66
September	8,813	488	156	294	.407	.45
Water year 1943-44	426,086	6,590	156	1,164	1.61	21.94

a No gage-height record; discharge computed on basis of reconstructed gage-height graph, observer's readings, and discharge hydrograph.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Raquette River at Raymondville, N. Y.

Location.- Water-stage recorder, lat. 44°50'20", long. 74°58'45", 250 feet upstream from old highway bridge at Raymondville, St. Lawrence County, 0.3 mile downstream from Trout Brook, 0.4 mile downstream from power plant of Central New York Power Corporation, and 18 miles upstream from mouth. Datum of gage is 183.33 feet above mean sea level, datum of 1929.

Drainage area.- 1,131 square miles.

Records available.- November 1943 to September 1944. September to October 1903, April 1904 to November 1916 at site at Massena Springs, 8 miles downstream (drainage area, 1,197 square miles), published as Raquette River at Massena Springs; records not comparable.

Extremes.- Maximum discharge during period, 9,090 second-feet Apr. 26 (gage height, 7.08 feet); minimum, 20 second-feet (regulated) Jan. 21, Feb. 20, 24 (gage height, 0.54 foot); minimum daily, 72 second-feet Sept. 9.

Remarks.- Records good except those for periods of ice effect or partially obstructed intake, which are fair. Large diurnal fluctuation in flow caused by power and industrial operations. Seasonal distribution of flow appreciably modified by natural storage in numerous lakes and ponds above station.

Rating tables, water year 1943-44, except periods of ice effect or partially obstructed intake (gage height, in feet, and discharge, in second-feet)

0.8	54	1.7	361	4.0	2,860
.9	73	2.1	601	5.0	4,820
1.0	95	2.5	915	6.0	6,820
1.2	151	3.0	1,420	7.1	9,130
1.4	223	3.5	2,050		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	1,620	1,020	900	940	1,990	7,400	1,950	1,460	737	258
2		-	1,610	960	1,180	1,200	1,950	7,600	1,950	1,320	753	288
3		-	1,680	1,100	1,250	*1,180	1,900	7,600	2,000	1,240	1,080	226
4		-	1,590	1,000	1,250	1,100	1,860	7,600	1,700	564	923	290
5		-	1,400	1,300	1,160	960	1,820	7,600	1,740	1,160	1,120	648
6		-	1,500	1,350	1,200	640	1,790	7,600	1,730	1,200	153	311
7		-	1,400	1,080	1,240	1,040	1,690	7,600	1,630	996	934	293
8		-	1,420	700	1,220	720	1,660	7,800	1,590	992	740	126
9		-	1,410	580	1,200	1,000	1,660	8,200	1,590	804	522	72
10		-	1,460	880	1,400	1,060	*1,940	8,800	1,600	1,160	482	62
11		-	1,450	1,020	1,350	1,060	2,480	8,400	1,610	1,270	408	78
12		-	1,500	1,080	980	1,080	2,890	8,000	1,630	1,310	726	138
13		-	1,400	1,160	410	2,300	2,990	7,600	1,660	1,230	387	426
14		-	1,300	920	1,080	2,200	2,840	7,000	1,630	1,380	872	403
15		-	1,300	840	960	1,400	2,770	6,600	1,610	1,370	782	442
16		-	1,350	960	980	860	2,730	6,600	1,580	1,380	791	438
17		-	1,200	1,060	940	1,000	2,860	6,000	1,470	1,160	766	304
18		-	*540	1,100	1,350	1,160	3,420	5,800	436	1,290	686	425
19		-	205	980	1,250	1,080	4,040	5,400	1,120	1,070	293	474
20		-	540	1,140	470	960	4,300	4,600	1,460	1,020	263	674
21		-	780	1,100	760	880	4,940	4,300	1,440	1,150	301	710
22		-	680	980	880	1,000	5,280	4,200	1,350	996	735	958
23		-	740	1,000	920	620	5,240	4,000	1,590	973	312	1,010
24		-	720	960	960	1,060	5,600	3,800	1,690	604	654	391
25		-	560	900	880	1,120	7,800	3,800	677	846	492	781
26		-	440	1,100	1,080	1,350	9,000	3,700	1,310	738	199	812
27		-	560	*1,700	880	1,700	8,600	3,200	1,270	625	211	843
28		-	940	2,500	980	1,900	7,800	3,200	1,400	766	382	918
29		1,560	1,080	1,400	840	2,850	7,400	3,200	1,370	798	256	1,050
30		*1,700	1,040	1,240	-	2,280	7,400	2,900	1,350	183	302	1,000
31		-	1,080	940	-	2,110	-	2,700	-	659	302	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	-	-	-	-	-	-
November 29-30	3,260	1,700	1,560	1,630	1.44	0.11
December	34,495	1,680	205	1,113	.984	1.13
Calendar year	-	-	-	-	-	-
January	34,050	2,500	580	1,098	.971	1.12
February	29,950	1,400	410	1,033	.913	.98
March	39,810	2,850	620	1,284	1.14	1.31
April	118,640	9,000	1,660	3,955	3.50	3.90
May	182,800	8,800	2,700	5,897	5.21	6.01
June	45,133	2,000	436	1,504	1.33	1.48
July	31,714	1,460	183	1,023	.905	1.04
August	17,564	1,120	153	567	.501	.58
September	14,869	1,050	72	496	.439	.49
Water year	-	-	-	-	-	-

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 5-7, Dec. 11 to Mar. 28. Intake partially obstructed Apr. 24 to June 4; discharge computed on basis of 5 discharge measurements, gage heights, engineers' inspections, and records for station at Piercefield.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

St. Regis River at Brasher Center, N. Y.

Location.- Water-stage recorder, lat. 44°51'50", long. 74°46'45", 600 feet upstream from highway bridge at Brasher Center, St. Lawrence County, and 6½ miles downstream from confluence of East and West Branches at Winthrop. Datum of gage is 217.23 feet above mean sea level, datum of 1929.
Drainage area.- 616 square miles.
Records available.- August 1910 to November 1917, January 1919 to September 1944.
Average discharge.- 31 years (1910-13, 1914-17, 1919-44), 1,051 second-feet.
Extremes.- Maximum discharge during year, 9,040 second-feet Apr. 25 (gage height, 10.54 feet); minimum, 137 second-feet Sept. 2 (gage height, 5.70 feet).
1910-17, 1919-44: Maximum discharge, 16,800 second-feet Apr. 6, 1937, from rating curve extended above 8,300 second-feet by logarithmic plotting; maximum gage height recorded, about 15.3 feet Apr. 6, 1937 (ice jam); minimum discharge, about 34 second-feet Aug. 8, 1917((gage height, 5.25 feet).
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 16				Mar. 17 to Sept. 30			
5.9	243	7.0	1,420	5.7	137	7.0	1,390
6.1	392	7.5	2,180	5.8	188	7.5	2,130
6.3	569	8.1	3,200	6.0	315	8.0	2,970
6.6	887			6.3	569	9.0	5,000
				6.6	885	10.3	8,340

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	a2,050	753	500	740	440	1,500	3,830	560	569	a230	152
2	418	a1,600	780	480	680	420	1,490	3,550	609	486	a215	147
3	721	a1,600	797	460	640	*410	1,250	3,170	540	346	a200	152
4	668	a1,550	742	450	600	400	1,170	2,860	762	432	a210	152
5	514	a1,400	732	440	580	380	1,080	2,600	578	323	a218	152
6	400	a1,240	720	450	660	390	993	2,400	551	315	a200	157
7	353	1,090	680	470	620	440	981	2,180	486	323	a188	178
8	337	1,050	753	440	560	500	957	2,580	409	308	178	235
9	361	*1,390	876	430	520	480	1,000	3,080	466	295	178	267
10	369	1,940	912	420	490	450	*2,210	3,340	323	281	168	267
11	330	1,860	716	410	460	440	3,080	2,950	486	288	236	254
12	322	1,630	532	410	440	480	3,360	2,540	569	323	254	235
13	307	1,380	569	400	420	1,100	2,830	2,190	541	323	162	247
14	314	1,290	620	400	410	880	2,480	1,920	426	338	162	247
15	330	1,120	600	390	400	740	2,210	1,740	409	361	168	290
16	361	1,020	580	390	390	660	2,050	1,590	392	315	168	544
17	434	853	560	380	410	900	1,960	1,450	506	281	162	863
18	589	830	*540	380	400	1,200	2,210	1,460	795	261	168	840
19	721	808	560	370	380	1,030	2,350	1,420	818	247	173	668
20	648	924	540	370	390	981	2,640	1,290	829	235	173	488
21	628	864	520	380	410	863	3,150	1,100	689	241	173	452
22	618	948	480	390	420	752	3,240	897	628	254	162	452
23	609	876	440	410	440	795	3,450	829	560	254	157	752
24	618	740	470	410	440	1,100	4,310	807	908	223	157	773
25	609	842	450	390	430	1,300	7,700	784	1,340	206	168	628
26	579	797	470	*430	420	1,700	8,120	762	1,350	200	168	466
27	905	842	520	700	410	1,900	6,340	678	1,090	200	162	452
28	1,560	1,040	640	1,200	450	2,070	5,160	648	760	206	157	468
29	2,570	880	620	1,140	450	2,070	4,480	560	652	212	157	505
30	a3,090	840	560	960	-	1,960	3,990	560	434	a241	157	569
31	a2,800	-	520	820	-	1,670	-	514	-	a260	147	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	23,413	3,090	307	755	1.23	1.41
November	35,294	2,050	740	1,176	1.91	2.13
December	19,252	912	440	621	1.01	1.16
Calendar year 1943	456,753	7,860	307	1,251	2.03	27.56
January	15,670	1,200	370	505	.820	.95
February	14,060	740	380	485	.787	.85
March	28,901	2,070	380	932	1.51	1.74
April	87,741	8,120	957	2,925	4.75	5.30
May	56,279	3,830	514	1,815	2.95	3.40
June	19,466	1,350	323	649	1.05	1.18
July	9,147	569	200	295	.479	.55
August	5,576	254	147	180	.292	.34
September	12,052	863	147	402	.653	.73
Water year 1943-44	326,851	8,120	147	893	1.45	19.74

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Grass River at Pyrites.
Note.- Stage-discharge relation affected by ice Nov. 15, 16, 24, 29, 30, Dec. 2, 6, 7, Dec. 14 to Mar. 18, Mar. 24-26 (no gage-height record Feb. 2-4, 19-25).
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Salmon River at Chasm Falls, N. Y.

Location.- Water-stage recorder, lat. 44°45'20", long. 74°13'10", at Chasm Falls, Franklin County, a quarter of a mile downstream from power plant of Central New York Power Corporation.
Drainage area.- 132 square miles.
Records available.- July 1925 to September 1944.
Average discharge.- 19 years, 224 second-feet.
Extremes.- Maximum discharge during year, 1,830 second-feet Apr. 26 (gage height, 4.04 feet); minimum, 23 second-feet (regulated) Oct. 11 (gage height, 0.58 foot); minimum daily, 72 second-feet Aug. 8.
1925-44: Maximum discharge, 2,890 second-feet Apr. 25, 1926 (gage height, 5.0 feet), from rating curve extended above 2,400 second-feet on basis of velocity-area studies; minimum, 14 second-feet (regulated) Feb. 12, 1943 (gage height, 0.44 foot); minimum daily, 28 second-feet Sept. 4, 1934.
Remarks.- Records excellent except those for periods of doubtful, fragmentary, or no gage-height record, which are good. Diurnal fluctuation at low and medium flow caused by power plant. A small diversion from tributary stream above station is used as water supply for village of Malone.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 25				Apr. 26 to Sept. 30			
1.0	63	2.1	391	1.0	66	2.1	406
1.1	77	2.5	613	1.1	80	2.5	617
1.2	93	3.0	960	1.2	96	3.0	950
1.4	134	3.7	1,540	1.4	136	3.5	1,340
1.7	223			1.7	231	3.9	1,690

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	300	212	177	253	143	250	1,080	145	137	95	87
2	143	284	187	159	219	133	249	1,030	143	128	95	94
3	165	363	190	159	223	146	237	892	174	118	90	92
4	99	322	189	164	192	126	221	821	159	112	83	82
5	118	296	186	158	191	121	223	721	137	109	82	90
6	117	266	139	163	188	124	237	549	135	110	77	154
7	110	242	206	162	179	127	233	491	130	104	79	139
8	115	242	195	160	170	122	243	567	133	105	72	142
9	108	420	204	155	163	121	265	606	124	96	73	138
10	113	432	198	159	158	117	540	560	144	104	f74	127
11	104	326	139	156	159	118	635	538	193	114	f73	147
12	109	284	184	157	155	122	553	445	160	111	111	168
13	102	260	181	146	149	150	447	382	140	140	127	142
14	107	253	176	144	152	155	377	341	130	114	96	123
15	140	234	166	149	145	158	340	314	126	104	90	246
16	73	214	191	136	151	167	322	297	149	101	88	346
17	205	190	185	135	154	178	326	256	232	93	91	157
18	202	245	193	146	153	201	377	298	173	98	107	196
19	180	185	186	149	145	168	453	275	160	88	96	194
20	198	234	192	133	150	180	595	247	185	100	a96	131
21	213	221	182	139	151	166	644	218	243	93	a84	247
22	197	215	176	138	147	156	553	206	202	101	a82	248
23	200	168	173	135	147	164	644	208	182	88	a76	129
24	184	226	d160	141	144	190	827	190	349	86	a90	99
25	171	235	d180	125	144	214	1,510	173	480	87	88	194
26	163	213	d185	145	135	309	1,660	170	336	84	82	186
27	272	214	d180	226	146	353	1,340	163	266	96	93	172
28	365	235	d195	331	150	335	1,080	149	217	97	97	220
29	426	188	d180	349	153	313	958	144	174	102	81	229
30	458	191	d175	304	-	300	1,000	143	151	127	85	194
31	335	-	175	264	-	260	-	136	-	110	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,617	458	73	181	1.37	1.58
November	7,698	432	168	257	1.95	2.17
December	5,660	212	139	183	1.39	1.59
Calendar year 1943	99,108	1,630	73	272	2.06	27.91
January	5,364	349	125	173	1.31	1.51
February	4,766	253	135	164	1.24	1.34
March	5,637	353	117	182	1.38	1.59
April	17,339	1,660	221	578	4.38	4.89
May	12,610	1,080	136	407	3.08	3.55
June	5,672	480	124	189	1.43	1.60
July	3,257	140	84	105	.795	.92
August	2,739	127	72	88.4	.670	.77
September	4,913	346	82	164	1.24	1.38
Water year 1943-44	81,272	1,660	72	222	1.68	22.89

a No gage-height record; discharge computed on basis of records of power-plant operation.
d Doubtful gage-height record; discharge computed on basis of records of power-plant operation.
f Fragmentary gage-height record; discharge computed on basis of records of power-plant operation.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Chateaugay River near Chateaugay, N. Y.

Location.- Water-stage recorder, lat. 44°54'35", long. 74°05'10", 150 feet downstream from dam of International Paper Co. and 1 mile south of Chateaugay, Franklin County.
Drainage area.- 112 square miles.
Records available.- September to December 1908, October 1926 to September 1944.
Average discharge.- 18 years (1926-44), 172 second-feet.
Extremes (regulated).- Maximum discharge during year, 1,040 second-feet Apr. 26 (gage height, 4.98 feet); minimum, 57 second-feet Sept. 11 (gage height, 1.24 feet); minimum daily, 59 second-feet Sept. 23.
1908, 1926-44: Maximum discharge, 2,060 second-feet Apr. 8, 1928 (gage height, 7.3 feet), from rating curve extended above 970 second-feet by logarithmic plotting; minimum, 6 second-feet Nov. 20, 1928 (gage height, 0.23 foot); minimum daily, 26 second-feet July 8, 1934.
Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are good. Flow regulated by Upper and Lower Chateaugay Lakes. Large diurnal fluctuation at all stages caused by power operations.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 23				Apr. 23 to Sept. 30			
1.5	82	2.5	231	1.2	53	2.5	242
1.6	94	3.0	339	1.3	63	3.0	351
1.8	119	3.3	418	1.5	85	3.5	483
2.1	161			1.8	124	4.0	643
				2.1	170	4.9	1,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	109	185	170	155	157	183	882	115	131	103	63
2	106	116	180	170	150	155	189	878	116	127	102	63
3	104	121	178	170	150	150	183	838	107	121	102	62
4	95	119	179	170	145	*160	182	810	106	114	102	62
5	101	133	179	160	150	150	179	760	110	117	103	63
6	99	132	168	127	160	150	178	704	108	113	100	63
7	97	145	141	124	155	160	178	606	106	116	99	64
8	98	166	198	120	150	165	183	623	98	114	78	63
9	100	184	193	122	150	160	203	606	98	113	80	61
10	99	*183	185	120	145	155	290	602	100	116	79	61
11	97	183	170	120	145	170	*218	589	96	113	77	60
12	98	179	195	122	145	190	210	520	96	113	84	60
13	96	184	180	122	145	185	198	220	93	114	73	64
14	96	178	180	120	155	175	208	206	96	110	71	64
15	96	189	175	118	175	170	241	179	97	113	70	94
16	97	185	175	110	175	183	242	176	100	113	71	75
17	98	191	180	110	180	204	247	176	108	106	70	65
18	94	181	180	112	170	184	287	156	98	108	65	64
19	94	180	*185	114	165	175	328	153	102	107	64	62
20	99	173	190	116	160	165	327	154	110	108	63	62
21	96	172	190	118	160	170	329	152	102	108	64	62
22	99	177	185	118	165	172	339	137	80	106	63	62
23	97	186	180	116	177	178	402	134	106	105	63	59
24	96	192	180	112	175	192	613	126	146	105	66	60
25	a98	189	180	114	170	247	854	127	139	104	64	60
26	a96	184	185	118	170	274	982	126	157	106	63	63
27	a135	190	185	150	166	208	950	123	168	106	63	62
28	a124	187	180	*165	161	201	902	123	162	105	63	63
29	a155	185	175	170	159	198	882	121	151	106	63	65
30	117	185	175	160	-	191	878	120	134	113	63	62
31	110	-	175	155	-	182	-	115	-	104	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,187	155	94	103	-	-
November	5,078	192	109	169	-	-
December	5,586	198	141	180	-	-
Calendar year 1943	71,619	911	92	196	1.75	23.78
January	4,113	170	110	133	-	-
February	4,628	180	145	160	-	-
March	5,576	274	150	180	-	-
April	11,585	982	178	386	-	-
May	11,242	882	115	363	-	-
June	3,405	168	80	114	-	-
July	3,455	131	104	111	-	-
August	2,354	103	63	75.9	-	-
September	1,913	94	59	63.8	-	-
Water year 1943-44	62,122	982	59	170	1.52	20.64

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of precipitation records at nearby stations.
Note.- Stage-discharge relation affected by ice Nov. 29 to Dec. 1, Dec. 10 to Jan. 5, Jan. 8 to Feb. 22, Feb. 24, Mar. 2-15, 19-21. Increase in storage in Chateaugay Lakes during calendar year 1943, about 119,200,000 cu. ft. (equivalent mean discharge, 3.78 sec.-ft.; runoff, 0.46 in.); increase in elevation, 0.90 ft. Decrease in storage during water year 1943-44, about 152,300,000 cu. ft. (equivalent mean discharge, 4.82 sec.-ft.; runoff, 0.59 in.); decrease in elevation, 1.15 ft.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Richelieu River (Lake Champlain) at Rouses Point, N. Y.

Location.- Water-stage recorder, lat. 44°59'45", long. 73°21'40", in Rouses Point, Clinton County, at outlet of Lake Champlain, 90 feet north of Rutland Railroad bridge and 1 mile south of Fort Montgomery. Datum of gage is 93.00 feet above mean sea level, datum of 1929.

Drainage area.- 8,277 square miles.

Records available.- October 1863 to December 1870 (maximum and minimum monthly gage heights at St. Johns, Quebec, published in Water-Supply Paper 97) and March 1871 to September 1944 (daily gage heights; those for 1871-1907 published in Water-Supply Paper 894). January 1875 to September 1916 (monthly discharge) at Chambly, Quebec, published in Water-Supply Paper 434. Gage heights prior to Oct. 1, 1925, published as Richelieu River at Fort Montgomery, Rouses Point.

Extremes.- Maximum gage height during year, 6.70 feet May 7; minimum, 0.53 foot Sept. 29.
1871-1944: Maximum gage height observed, 8.80 feet Mar. 30, 1903; minimum observed, -0.83 foot Oct. 23, 1941.
Observations at St. Johns, Quebec, indicate a maximum gage height of 8.83 feet (computed) during April 1869.

Gage height, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.59	2.05	2.51	2.10	1.81	1.62	3.79	6.25	4.24	2.82	1.78	0.92
2	1.49	2.10	2.90	2.08	1.85	1.63	3.84	6.42	4.13	2.75	1.76	.93
3	1.46	2.02	2.76	2.05	1.81	1.60	3.92	6.38	3.93	2.70	1.73	.82
4	1.42	2.05	2.88	2.01	1.82	1.59	3.95	6.36	3.99	2.65	1.71	.80
5	1.42	2.14	2.70	2.02	1.84	1.59	3.99	6.36	4.18	2.63	1.66	.77
6	1.51	2.10	2.79	2.04	1.74	1.57	4.01	6.45	3.95	2.56	1.52	.78
7	1.40	2.08	2.64	2.04	1.74	1.58	3.98	6.41	3.67	2.55	1.45	.90
8	1.41	2.33	2.84	2.00	1.72	1.51	3.98	6.39	3.58	2.50	1.46	.77
9	1.30	2.31	2.66	1.99	1.72	1.47	3.97	6.40	3.50	2.43	1.49	.70
10	1.26	2.69	2.63	1.96	1.68	1.46	4.05	6.39	3.48	2.39	1.51	.69
11	1.34	2.79	2.46	1.95	1.67	1.46	4.37	6.34	3.46	2.39	1.48	.68
12	1.31	2.90	2.80	1.91	1.62	1.46	4.63	6.30	3.39	2.56	1.46	.69
13	1.24	3.00	2.51	1.89	1.65	1.45	4.83	6.28	3.28	2.32	1.36	.72
14	1.42	2.94	2.51	1.89	1.68	1.52	4.96	6.08	3.26	2.30	1.37	.68
15	1.14	3.01	2.51	1.84	1.69	1.60	5.04	6.07	3.25	2.28	1.32	.67
16	1.18	2.83	2.49	1.82	1.68	1.67	5.08	5.98	3.10	2.21	1.30	.75
17	1.31	2.94	2.54	1.82	1.69	1.74	5.17	5.85	3.04	2.13	1.26	.85
18	1.41	2.96	2.48	1.81	1.67	1.87	5.20	5.57	2.93	2.07	1.22	.96
19	1.37	3.02	2.46	1.81	1.67	1.97	5.26	5.59	3.12	2.13	1.14	.93
20	1.32	2.82	2.40	1.77	1.67	2.04	5.25	5.48	2.84	2.27	1.26	.91
21	1.41	2.74	2.40	1.80	1.64	2.10	5.34	5.39	2.85	2.01	1.27	.90
22	1.43	2.44	2.33	1.78	1.64	2.14	5.40	5.29	2.90	2.00	1.14	.78
23	1.38	2.68	2.31	1.74	1.64	2.18	5.44	5.21	2.88	1.89	1.05	.70
24	1.32	2.90	2.33	1.71	1.65	2.26	5.59	5.12	2.88	1.95	1.02	.75
25	1.40	2.94	2.34	1.72	1.64	2.45	5.70	5.04	2.91	1.83	1.00	.84
26	1.38	2.98	2.30	1.73	1.64	2.69	5.98	4.97	2.99	1.80	1.00	.76
27	1.48	2.89	2.27	1.74	1.65	3.04	6.06	4.78	3.02	1.85	.98	.66
28	1.61	2.76	2.19	1.75	1.65	3.27	6.12	4.63	3.04	1.86	1.00	.72
29	1.87	2.81	2.20	1.78	1.64	3.48	6.22	4.53	2.98	1.89	.99	.68
30	1.88	2.82	2.21	1.81	-	3.62	6.24	4.47	2.88	1.86	.91	.76
31	1.93	-	2.19	1.83	-	3.71	-	4.34	-	1.80	.89	-

Monthly gage height, in feet, water year October 1943 to September 1944

Month	Maximum	Minimum	Mean
October	1.93	1.14	1.43
November	3.02	2.02	2.63
December	2.90	2.19	2.51
Calendar year 1943	6.65	1.14	2.99
January	2.10	1.71	1.88
February	1.85	1.62	1.70
March	3.71	1.45	2.04
April	6.24	3.79	4.91
May	6.45	4.34	5.71
June	4.24	2.84	3.32
July	2.82	1.80	2.24
August	1.78	.89	1.31
September	.96	.66	.78
Water year 1943-44	6.45	.66	2.54

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Lake Champlain at Burlington, Vt.

Location.- Water-stage recorder, lat. 44°29'00", long. 73°13'30", in Burlington, Chittenden County, 0.6 mile north of railroad station. Datum of gage is 92.86 feet above mean sea level, datum of 1929.

Records available.- May 1907 to September 1944.

Extremes.- Maximum gage height during year, 6.48 feet May 8; minimum, 0.67 foot sometime during period Sept. 7-29.

1907-44: Maximum gage height observed, 8.65 feet Mar. 27, 28, 1936; minimum observed, -0.25 foot Dec. 4, 1908.

Gage height, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.67	2.07	2.93	2.21	1.87	1.65	3.85	6.40	4.31	2.89	1.82	0.93
2	1.66	2.06	2.89	2.18	1.85	1.64	3.92	6.37	4.22	2.84	1.78	.91
3	1.62	2.11	2.89	2.15	1.85	1.63	3.99	6.37	4.16	2.79	1.75	.91
4	1.62	2.14	2.85	2.13	1.83	1.62	4.04	6.41	4.04	2.73	1.71	.88
5	1.59	2.12	2.83	2.09	1.81	1.60	4.06	6.45	3.87	2.67	1.68	.87
6	1.51	2.13	2.81	2.12	1.80	1.58	4.05	6.45	3.72	2.62	1.65	.86
7	1.49	2.12	2.79	2.13	1.77	1.58	4.04	6.43	3.69	2.56	1.64	.82
8	1.46	2.09	2.72	2.10	1.77	1.58	4.05	6.45	3.63	2.51	1.60	.78
9	1.44	2.39	2.70	2.08	1.73	1.57	4.04	6.45	3.57	2.46	1.53	.78
10	1.41	2.74	2.70	2.06	1.74	1.57	4.17	6.44	3.51	2.43	1.46	.77
11	1.36	2.94	2.69	2.02	1.72	1.55	4.48	6.41	3.46	2.42	1.41	.75
12	1.31	3.01	2.62	2.01	1.72	1.53	4.74	6.36	3.38	2.36	1.40	.73
13	1.30	3.03	2.63	1.98	1.70	1.55	4.97	6.27	3.32	2.35	1.39	.71
14	1.22	3.04	2.63	1.95	1.68	1.63	5.08	6.19	3.25	2.33	1.36	.69
15	1.25	3.03	2.59	1.93	1.74	1.70	5.13	6.12	3.14	2.31	1.31	.80
16	1.29	3.04	2.58	1.91	1.73	1.76	5.17	6.02	3.10	2.26	1.29	.82
17	1.36	3.01	2.52	1.88	1.70	1.83	5.23	5.91	3.09	2.19	1.30	.85
18	1.42	2.97	2.52	1.88	1.75	1.97	5.29	5.82	3.04	2.16	1.36	.82
19	1.50	2.88	2.49	1.83	1.73	2.08	5.32	5.69	2.95	2.10	1.32	.79
20	1.51	2.90	2.48	1.82	1.72	2.15	5.37	5.56	2.95	1.98	f1.26	.81
21	1.52	2.92	2.45	1.80	1.71	2.20	5.43	5.45	2.95	1.99	f1.15	.80
22	1.54	3.00	2.44	1.78	1.70	2.23	5.48	5.34	2.94	1.96	f1.15	.80
23	1.55	3.06	2.40	1.79	1.73	2.25	5.51	5.25	2.95	1.94	f1.16	.80
24	1.58	3.02	2.36	1.78	1.72	2.33	5.54	5.13	2.98	1.88	f1.15	.80
25	1.55	2.96	2.33	1.74	1.70	2.49	5.78	5.03	3.06	1.85	1.12	.80
26	1.55	2.93	2.30	1.75	1.69	2.78	6.04	4.89	3.07	1.85	1.09	.80
27	1.66	2.95	2.30	1.74	1.67	3.12	6.22	4.78	3.06	1.86	1.05	.79
28	1.76	2.93	2.31	1.78	1.67	3.38	6.32	4.70	3.02	1.86	f1.02	.79
29	1.87	2.95	2.28	1.82	1.66	3.56	6.36	4.59	2.99	1.87	.99	.81
30	1.97	2.94	2.25	1.84	-	3.70	6.39	4.47	2.94	1.86	.97	.83
31	2.05	-	2.23	1.83	-	3.79	-	4.38	-	1.83	.97	-

f Fragmentary gage-height record.

Note.- Recorder not operating Aug. 25-27, Sept. 7-29. Gage heights for Sept. 7-10, 14-20, 22, 23, 25, 28, 29 computed from graph based on once-daily readings of float gage in pump house of Burlington Water Department. Gage heights for Aug. 25-27, Sept. 11-13, 21, 24, 26, 27 obtained by interpolation.

Monthly gage height, in feet, water year October 1943 to September 1944

Month	Maximum	Minimum	Mean
October	2.05	1.22	1.54
November	3.06	2.06	2.72
December	2.93	2.23	2.56
Calendar year 1943	6.52	1.22	3.07
January	2.21	1.74	1.94
February	1.87	1.66	1.74
March	3.79	1.53	2.12
April	6.39	3.85	5.00
May	6.45	4.38	5.76
June	4.31	2.94	3.35
July	2.89	1.83	2.25
August	1.82	.97	1.35
September	.93	.69	.81
Water year 1943-44	6.45	.69	2.59

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Smaller Reservoirs in Richelieu River Basin, Vt.

Chittenden and East Pittsford Reservoirs on East Creek are operated as a unit for conservation for hydroelectric power development. Their downstream order and the usable capacity of each are as follows: Chittenden Reservoir, 5 miles northeast of Chittenden, Vt., completed in 1902, has usable capacity of 819,800,000 cubic feet; East Pittsford Reservoir, at East Pittsford, Vt., completed in 1901, has usable capacity of 150,000,000 cubic feet. Records furnished by Central Vermont Public Service Corporation.

Peacham Pond and Mollys Falls Reservoir are operated as a unit for conservation for hydroelectric power development. Their downstream order and the usable capacity of each are as follows: Peacham Pond on Peacham Brook, 4 miles east of Marshfield, Vt., 126,000,000 cubic feet; Mollys Falls Reservoir on Mollys Brook, 2 miles east of Marshfield, Vt., 366,000,000 cubic feet. Records furnished by Green Mountain Power Corporation.

Monthly change in reservoir contents, equivalent in second-feet, water year October 1943 to September 1944

Month	Chittenden and East Pittsford Reservoirs on East Creek	Peacham Pond and Mollys Falls Reservoir in Winooski River Basin
October	-17.4	-6.05
November	+20.3	+16.4
December	-31.6	-25.2
Calendar year 1943	+2.53	-.089
January	-65.2	-25.3
February	-49.1	-34.2
March	-8.81	-11.5
April	+127	+90.0
May	+44.6	+42.1
June	+8.41	+6.48
July	-9.04	-12.9
August	-57.4	-33.1
September	-31.9	-18.0
Water year 1943-44	-6.02	-1.02

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Great Chazy River at Perry Mills, N. Y.

Location.- Water-stage recorder, lat. 45°00'00", long. 73°30'05", 500 feet upstream from highway bridge at Perry Mills, Clinton County.

Drainage area.- 247 square miles.

Records available.- September 1928 to September 1944.

Average discharge.- 16 years, 258 second-feet.

Extremes.- Maximum discharge during year, 2,990 second-feet Apr. 25; maximum gage height, 7.27 feet Mar. 26 (backwater from ice); minimum discharge, 27 second-feet (regulated) July 26 (gage height, 1.86 feet); minimum daily, 31 second-feet (regulated) July 26.
1928-44: Maximum discharge, 6,000 second-feet Apr. 7, 1937; maximum gage height, 11.2 feet Mar. 15, 1929 (ice jam); minimum discharge, about 0.8 second-foot (regulated) Sept. 18, 1932 (gage height, 1.33 feet); minimum daily, 10 second-feet (regulated) Sept. 18, 1932.

Remarks.- Records good except those for periods of ice effect, which are poor. Diurnal fluctuation at low and medium flow caused by saw mill. Partial regulation by Chazy Lake. Clinton Prison at Dannemora obtains its water supply from Chazy Lake.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

1.9	31	3.2	310	5.0	1,170
2.1	52	3.6	457	6.0	1,890
2.4	100	4.0	631	6.8	2,580
2.8	196	4.5	882		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	272	235	185	280	180	660	876	102	85	61	97
2	63	286	220	175	250	165	680	744	108	79	56	89
3	82	334	225	180	240	155	640	594	114	70	51	73
4	85	323	220	190	250	150	580	586	125	74	51	69
5	135	279	200	180	220	*145	540	526	116	59	47	77
6	133	247	170	210	230	150	500	422	79	57	49	78
7	134	214	190	220	230	155	480	352	73	61	50	79
8	130	198	205	175	210	160	470	470	74	54	54	71
9	129	495	210	180	200	155	461	544	75	58	51	71
10	133	482	200	175	195	155	1,500	549	74	52	43	78
11	128	*336	140	175	185	150	*1,780	564	74	62	41	49
12	108	279	130	170	180	155	1,160	424	77	56	42	32
13	106	270	210	165	175	180	952	343	70	54	44	34
14	108	238	200	160	170	240	762	305	56	57	43	40
15	105	201	230	160	170	220	578	282	41	50	49	59
16	118	234	220	155	170	210	629	277	42	51	57	274
17	152	215	215	145	175	215	705	238	101	48	67	147
18	180	215	240	155	175	370	1,040	228	137	56	88	93
19	130	212	235	170	165	310	1,070	220	87	55	74	58
20	119	212	*210	165	160	270	1,290	195	130	52	75	43
21	130	188	200	160	165	240	1,180	183	190	51	98	39
22	150	182	195	160	165	230	894	178	165	52	93	68
23	144	134	190	155	170	245	962	179	164	50	94	58
24	153	161	170	155	170	290	1,260	163	126	48	97	42
25	169	232	190	145	165	420	2,580	152	455	38	98	44
26	161	252	200	160	160	740	2,430	140	274	31	95	40
27	368	337	210	240	170	800	1,340	127	186	52	99	41
28	821	350	210	400	180	700	968	112	141	93	97	47
29	765	260	190	500	185	640	814	102	110	70	96	66
30	722	220	180	380	-	600	868	114	95	66	99	75
31	393	-	180	320	-	640	-	103	-	56	99	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,311	821	57	204	0.826	0.95
November	7,858	495	134	262	1.06	1.18
December	6,220	240	130	201	.814	.94
Calendar year 1943	109,497	2,520	51	300	1.21	16.49
January	6,265	500	145	202	.818	.94
February	5,560	280	160	192	.777	.84
March	9,435	800	145	304	1.23	1.42
April	29,773	2,580	461	992	4.02	4.48
May	10,292	876	102	332	1.34	1.55
June	3,661	455	41	122	.494	.55
July	1,797	93	31	58.0	.235	.27
August	2,158	99	41	69.6	.282	.32
September	2,131	274	32	71.0	.287	.32
Water year 1943-44	91,461	2,580	31	250	1.01	13.76

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 28 to Apr. 8.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Saranac River at Plattsburg, N. Y.

Location.- Water-stage recorder, lat. 44°40'50", long. 73°28'20", in Plattsburg, Clinton County, 600 feet downstream from Imperial Paper and Color Corporation dam and 3 miles upstream from mouth.

Drainage area.- 608 square miles.

Records available.- October 1943 to September 1944. March 1903 to September 1930 at site 1.5 miles upstream, published as Saranac River near Plattsburg.

Average discharge.- 26 years (1905-30, 1943-44), 813 second-feet.

Extremes.- Maximum discharge during year, 6,540 second-feet Apr. 25 (gage height, 8.33 feet); minimum, 3.0 second-feet (regulated) June 20 (gage height, 1.23 feet); minimum daily, 167 second-feet Sept. 5.
1903-30, 1943-44: Maximum daily discharge, 8,600 second-feet Apr. 8, 1928; minimum daily, 15 second-feet Aug. 4, 1908.

Remarks.- Records excellent except those for periods of ice effect or doubtful or no gage-height record, which are fair. Flow partly regulated by storage in Lower Saranac Lake and elsewhere. Considerable diurnal fluctuation caused by power and industrial operations.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.5	153	3.3	420	5.0	1,580
2.6	179	3.6	567	6.0	2,770
2.8	237	4.0	804	7.0	4,220
3.0	303	4.5	1,150	7.8	5,560

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a560	800	879	700	810	d780	1,200	3,580	364	626	425	387
2	a700	698	839	653	766	722	1,270	3,390	375	511	400	248
3	616	913	953	654	719	675	1,160	3,170	418	504	435	203
4	617	1,010	850	678	708	640	1,060	3,120	411	576	485	220
5	593	976	854	635	702	*600	963	3,120	493	725	314	167
6	632	810	546	676	698	640	919	3,000	403	568	598	358
7	400	855	718	692	680	681	911	2,830	438	492	274	271
8	446	908	832	560	640	697	806	2,760	602	472	384	224
9	392	1,390	866	580	600	680	783	2,560	506	302	428	265
10	329	*1,500	914	560	660	660	1,900	2,440	511	292	393	212
11	489	*1,280	642	645	669	648	*2,060	2,280	540	358	407	169
12	403	1,150	472	660	615	617	1,900	2,020	613	404	459	273
13	445	1,080	696	633	654	706	1,800	1,860	465	421	266	317
14	452	1,020	606	587	670	785	1,560	1,800	511	437	478	318
15	563	d880	792	737	652	802	1,480	1,720	491	413	368	389
16	543	d840	727	700	684	765	1,420	1,670	496	263	381	730
17	653	767	636	580	653	770	1,450	1,430	670	415	311	375
18	697	776	794	640	660	1,020	1,640	1,410	606	629	306	396
19	622	819	725	716	620	853	1,900	1,320	743	451	412	304
20	509	830	*748	681	587	692	2,320	1,200	334	596	295	250
21	543	766	699	678	672	676	2,480	1,040	644	582	288	283
22	542	806	676	638	619	661	2,140	1,000	747	511	273	322
23	491	692	646	625	637	654	2,530	851	693	529	382	300
24	477	582	486	653	709	725	3,300	614	739	436	346	229
25	534	832	782	606	828	979	5,520	507	1,350	434	419	339
26	485	1,100	706	644	d820	1,350	5,040	377	950	406	300	300
27	976	1,130	789	754	d800	1,400	4,430	355	884	411	173	318
28	1,390	994	752	1,320	d780	1,200	3,980	488	821	412	262	542
29	1,120	815	657	*1,170	d800	1,200	3,620	516	767	500	289	469
30	969	709	631	955	-	1,050	3,610	364	683	376	217	456
31	826	-	680	778	-	1,170	-	504	-	328	251	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	19,014	1,390	329	613	1.01	1.16
November	27,728	1,500	582	924	1.52	1.70
December	22,593	953	472	729	1.20	1.38
Calendar year	-	-	-	-	-	-
January	21,788	1,320	560	703	1.16	1.33
February	20,112	828	587	694	1.14	1.23
March	25,498	1,400	600	823	1.35	1.56
April	65,152	5,520	783	2,172	3.57	3.99
May	53,296	3,580	355	1,719	2.83	3.26
June	18,268	1,350	334	609	1.00	1.12
July	14,380	725	263	464	.763	.88
August	11,019	598	173	355	.584	.67
September	9,634	730	167	321	.528	.59
Water year 1943-44	308,482	5,520	167	843	1.39	18.87

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records at Kents Falls power plant.
d Doubtful gage-height record; discharge computed on basis of records at Kents Falls power plant.
Note.- Stage-discharge relation affected by ice Jan. 8-10, 16-18, Feb. 7-9, Mar. 4-6, 9, 10.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

West Branch Ausable River near Newman, N. Y.

Location.- Water-stage recorder, lat. 44°18'40", long. 73°55'00", 4 miles northeast of Newman, Essex County, and 4 miles downstream from Lake Placid Outlet.

Drainage area.- 116 square miles.

Records available.- June 1916 to December 1917, July 1919 to September 1944.

Average discharge.- 25 years (1919-44), 215 second-feet.

Extremes.- Maximum discharge during year, 2,490 second-feet May 5 (gage height, 6.80 feet); minimum, 27 second-feet (regulated) Aug. 22 (gage height, 2.26 feet); minimum daily, 40 second-feet Aug. 22, 23.
1916-17, 1919-44: Maximum discharge, 10,800 second-feet Sept. 22, 1938 (gage height, 12.20 feet), from rating curve extended above 3,200 second-feet by logarithmic plotting; practically no flow Sept. 13, 1920 (gage height, 1.60 feet), caused by closing gates in logging dam; minimum daily, 7.2 second-feet (regulated) July 29, 1920.

Remarks.- Records excellent except those for periods of ice effect, which are fair. Diurnal fluctuation at low and medium flow caused by power plants.

Rating tables, water year 1943-44, except periods of ice effect and shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 8				Nov. 9 to Sept. 30					
2.5	48	3.3	205	2.4	38	3.0	128	4.5	709
2.6	60	3.6	306	2.5	48	3.3	200	5.0	992
2.8	92	4.0	478	2.6	60	3.6	296	5.6	1,410
3.0	132	4.6	796	2.8	90	4.0	460	6.4	2,100

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	242	126	78	135	72	162	1,270	136	103	106	42
2	64	211	120	78	126	66	157	1,360	150	92	90	43
3	71	235	115	76	116	62	146	1,520	128	84	79	45
4	72	235	114	78	108	60	137	2,060	116	73	70	45
5	69	217	108	82	104	58	137	2,020	99	71	66	57
6	64	214	95	90	110	62	124	1,740	85	88	60	75
7	61	214	116	92	100	*68	125	1,550	118	79	55	70
8	60	298	108	86	92	74	141	1,400	118	68	52	70
9	58	1,260	114	80	88	68	155	329	95	73	49	65
10	59	621	108	78	92	64	570	844	108	162	46	59
11	62	381	83	76	86	62	710	730	200	164	46	55
12	55	*268	97	74	78	66	520	559	148	137	47	48
13	59	226	104	72	84	130	*416	511	112	217	44	50
14	65	195	87	72	80	139	315	658	94	197	44	57
15	57	172	98	70	78	121	255	447	85	148	43	254
16	96	160	94	68	76	100	229	366	79	122	44	300
17	157	140	90	66	82	135	239	311	121	104	42	168
18	159	135	88	66	82	187	239	286	132	90	58	119
19	111	130	86	68	76	140	277	229	112	80	58	94
20	96	128	86	72	74	116	392	195	137	76	45	84
21	109	124	*84	78	72	100	501	174	266	84	46	79
22	119	120	82	80	72	92	416	193	235	79	40	147
23	128	90	80	78	78	104	532	248	177	68	40	128
24	154	150	78	76	80	140	944	192	1,040	64	57	99
25	134	165	78	72	76	190	1,620	164	792	59	59	88
26	113	155	80	76	70	282	1,500	150	400	58	51	80
27	775	150	94	110	74	315	1,020	137	245	63	46	77
28	660	146	92	180	84	282	879	122	179	80	46	81
29	680	132	84	190	76	235	814	110	143	76	44	377
30	466	126	82	165	-	212	1,030	101	120	141	45	186
31	315	-	80	*150	-	179	-	95	-	139	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,207	775	55	168	1.45	1.67
November	7,040	1,260	90	235	2.03	2.26
December	2,954	126	78	95.3	.822	.95
Calendar year 1943	91,541	2,310	45	251	2.16	29.35
January	2,777	190	66	89.6	.772	.89
February	2,548	135	70	87.9	.758	.82
March	3,961	315	58	128	1.10	1.28
April	14,705	1,620	124	490	4.22	4.71
May	20,571	2,060	95	664	5.72	6.60
June	5,970	1,040	79	199	1.72	1.91
July	3,139	217	58	101	.871	1.01
August	1,662	106	40	53.6	.462	.53
September	3,142	377	42	105	.905	1.01
Water year 1943-44	73,696	2,060	40	201	1.73	23.64

Peak discharge.- Apr. 26 (2:15 a.m.) 1,750 sec.-ft.; May 5 (1:40 a.m.) 2,490 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Shifting-control method used Nov. 8. Stage-discharge relation affected by ice Nov. 17, 18, 23-25, Dec. 15 to Mar. 13, Mar. 16, 17, 19-24 (no gage-height record Jan. 26-31).
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Ausable River near Ausable Forks, N. Y.

Location.- Water-stage recorder, lat. 44°27'05", long. 73°38'35", 1¾ miles downstream from confluence of East and West Branches and Ausable Forks, Clinton County. Datum of gage is 505.61 feet above mean sea level, adjustment of 1912.

Drainage area.- 448 square miles.

Records available.- September 1924 to September 1944. August 1910 to September 1925 at Ausable Forks, 1½ miles upstream.

Average discharge.- 20 years (1924-44), 664 second-feet.

Extremes.- Maximum discharge during year, 11,400 second-feet June 24 (gage height, 8.15 feet); minimum, 101 second-feet (regulated) Oct. 2 (gage height, 1.13 feet).

1910-44: Maximum discharge, 24,200 second-feet Sept. 22, 1938, from rating curve extended above 9,100 second-feet by logarithmic plotting; maximum gage height, about 14.0 feet Mar. 27, 1934 (ice jam); practically no flow July 21, 1912.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated, principally by Taylor Pond and Fern Lake. Diurnal fluctuations at low and medium flow caused by power plants above station.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.3	146	2.3	630	5.0	3,850
1.4	178	2.9	1,080	5.8	5,330
1.6	252	3.5	1,690	6.3	6,390
1.9	391	4.2	2,610		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	762	390	230	*430	220	705	4,320	506	356	300	175
2	200	637	390	225	390	205	712	4,370	503	309	256	175
3	213	691	423	220	360	210	644	4,710	418	274	244	168
4	217	671	402	225	330	200	584	6,300	366	252	217	172
5	206	624	380	250	310	195	559	6,240	323	229	196	182
6	202	591	340	290	320	*220	509	5,210	282	229	185	248
7	188	624	370	270	300	235	522	4,440	286	236	185	240
8	192	632	380	250	290	260	578	4,260	318	202	175	225
9	185	3,840	451	240	280	240	628	2,790	274	185	168	213
10	188	*2,280	440	230	270	220	2,510	2,400	292	356	162	196
11	196	1,340	300	225	260	215	2,790	2,340	534	391	168	196
12	182	928	282	220	245	225	*2,060	1,790	451	364	175	182
13	185	*741	340	215	250	430	1,560	1,550	336	591	178	196
14	178	637	310	215	245	480	1,210	1,830	278	497	178	202
15	196	540	290	210	240	370	1,020	1,410	a252	361	172	386
16	249	490	290	205	235	320	952	1,180	a261	278	165	779
17	481	400	280	200	250	400	976	992	341	244	168	434
18	528	420	270	200	250	560	1,070	928	402	213	206	354
19	396	418	270	205	230	420	1,220	791	346	196	196	256
20	318	423	260	220	225	340	1,640	671	410	188	182	210
21	*313	402	260	235	220	300	1,930	578	800	210	182	188
22	336	380	*250	245	225	280	1,580	559	705	240	172	289
23	356	280	240	240	240	310	1,930	755	528	213	165	336
24	418	405	235	230	245	520	3,330	644	4,620	210	206	261
25	396	553	235	225	235	840	5,870	546	4,070	196	225	225
26	346	522	245	240	215	1,520	5,390	491	1,840	192	206	202
27	1,930	497	270	350	225	1,370	3,640	385	1,080	221	192	206
28	2,270	460	260	620	250	1,280	3,120	396	719	252	188	217
29	2,360	420	245	580	235	1,010	2,850	366	504	248	175	822
30	1,560	400	240	500	-	897	3,610	318	413	332	175	618
31	1,020	-	235	450	-	776	-	300	-	37[illegible]	175	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	16,201	2,360	178	523	1.17	1.34
November	22,008	3,840	280	734	1.64	1.83
December	9,573	451	235	309	.690	.79
Calendar year 1943	282,253	6,940	130	773	1.73	23.42
January	8,460	620	200	273	.609	.70
February	7,800	430	215	269	.600	.65
March	15,068	1,520	195	486	1.08	1.25
April	55,699	5,870	509	1,857	4.15	4.62
May	63,860	6,300	300	2,060	4.60	5.30
June	22,458	4,620	252	749	1.67	1.86
July	8,636	591	185	279	.623	.72
August	5,937	300	162	192	.429	.49
September	8,553	822	168	285	.636	.71
Water year 1943-44	244,253	6,300	162	667	1.49	20.26

Peak discharge.- Apr. 26 (2 a.m.) 6,480 sec.-ft.; June 24 (6 p.m.) 11,400 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage and records for upstream stations.

Note.- Stage-discharge relation affected by ice Nov. 16-18, 22, 23, Nov. 28 to Dec. 2, Dec. 5-8, Dec. 13 to Mar. 25.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Black Brook at Black Brook, N. Y.

Location.- Water-stage recorder, lat. 44°26'50", long. 73°44'45", 100 feet downstream from abandoned hydroelectric plant of New York State Electric & Gas Corp. and three-quarters of a mile south of town of Black Brook, Clinton County.

Drainage area.- 49.4 square miles.

Records available.- September 1924 to September 1944.

Average discharge.- 20 years, 48.1 second-feet.

Extremes.- Maximum discharge during year, 590 second-feet Apr. 25 (gage height, 5.32 feet); minimum, 11 second-feet Sept. 25 (gage height, 1.59 feet).
1924-44: Maximum discharge, 1,050 second-feet Apr. 6, 1937 (gage height, 6.95 feet), from rating curve extended above 450 second-feet by logarithmic plotting; minimum, 0.8 second-foot (regulated) July 2, Aug. 29, 1931.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow regulated by Fern Lake and Taylor Pond.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 25

1.6	11	2.3	59	4.0	309
1.7	15	2.6	94	4.5	405
1.8	20	3.0	146	5.1	537
2.0	32	3.5	222		

Apr. 26 to Sept. 30

1.6	12	2.0	36
1.7	16	2.3	63
1.8	22	2.6	94

Note.- Same as preceding table above 2.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	28	23	15	*33	22	111	258	27	28	49	63
2	43	24	23	15	31	23	109	230	25	24	49	63
3	43	28	22	14	30	24	102	201	24	23	49	62
4	42	29	23	15	29	25	98	204	21	23	47	61
5	42	26	24	20	28	30	93	219	19	20	48	65
6	40	23	23	21	27	*39	83	198	19	19	51	68
7	38	21	22	20	27	43	78	166	18	16	49	65
8	37	25	21	19	26	44	82	153	17	15	48	62
9	39	61	23	18	25	42	84	131	15	14	48	61
10	36	*69	26	18	25	43	153	131	19	15	47	60
11	36	47	25	17	24	49	251	122	33	19	61	61
12	35	*34	24	17	24	42	*225	109	23	20	65	60
13	35	*29	23	20	23	32	181	96	18	29	65	68
14	34	26	22	20	23	36	150	90	15	23	65	73
15	34	23	21	19	23	37	129	80	15	17	64	96
16	36	22	21	19	23	36	118	75	16	15	64	90
17	49	20	20	20	24	37	119	71	35	14	65	48
18	50	19	20	19	23	39	140	68	31	13	65	21
19	42	19	19	18	22	36	175	62	27	13	63	17
20	41	20	19	17	23	34	232	57	29	13	65	15
21	38	22	*18	18	25	32	253	52	31	15	65	15
22	38	21	17	20	27	31	204	52	30	47	63	19
23	38	21	16	21	27	31	220	52	25	52	61	16
24	40	25	16	20	25	36	317	47	73	51	73	13
25	38	27	15	20	24	43	537	44	162	50	69	12
26	37	27	16	21	23	68	469	40	90	49	67	16
27	73	26	18	29	22	83	367	39	58	55	66	23
28	107	25	17	46	21	98	314	57	45	54	66	23
29	100	25	17	46	22	96	273	47	38	51	66	28
30	67	24	16	42	-	118	266	27	32	57	65	27
31	38	-	16	36	-	120	-	25	-	52	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,407	107	34	45.4	-	-
November	836	69	19	27.9	-	-
December	626	26	15	20.2	-	-
Calendar year 1943	12,074.1	274	5.4	33.1	0.670	9.08
January	680	46	14	21.9	-	-
February	729	33	21	25.1	-	-
March	1,469	120	22	47.4	-	-
April	5,933	537	78	198	-	-
May	3,203	258	25	103	-	-
June	1,030	162	15	34.3	-	-
July	906	57	13	29.2	-	-
August	1,851	73	47	59.7	-	-
September	1,371	96	12	45.7	-	-
Water year 1943-44	20,041	537	12	54.9	1.11	15.09

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 17, 22, 23, Nov. 27 to Dec. 2, Dec. 5-8, Dec. 11 to Jan. 25, Jan. 28 to Feb. 27, Mar. 1-11, 18-22.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

East Branch Ausable River at Ausable Forks, N. Y.

Location.- Water-stage recorder, lat. 44°26'20", long. 73°40'55", 700 feet upstream from upper highway bridge in Ausable Forks, Essex County, and half a mile upstream from confluence with West Branch. Datum of gage is 545.37 feet above mean sea level, datum of 1929.

Drainage area.- 198 square miles.

Records available.- September 1924 to September 1944.

Average discharge.- 20 years, 302 second-feet.

Extremes.- Maximum discharge during year, 9,420 second-feet June 24 (gage height, 8.75 feet); minimum, 33 second-feet Aug. 23 (gage height, 1.01 feet).
1924-44: Maximum discharge, 20,100 second-feet Sept. 22, 1938 (gage height, 12.91 feet, present site and datum, or 11.2 feet, site and datum then in use, from flood-marks); minimum observed, 20 second-feet Aug. 11, 14, 28, 1934.

Remarks.- Records excellent except those for periods of ice effect, which are fair.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 4

1.2	54	2.1	269	4.0	1,410
1.4	81	2.5	437	5.0	2,420
1.6	117	3.0	704	5.8	3,500
1.8	170	3.5	1,030		

May 5 to Sept. 30

1.0	32	1.6	120
1.1	42	1.8	171
1.2	54	2.1	269
1.4	82		

Note.- Same as preceding table above 2.1 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	353	185	102	165	92	320	2,070	316	163	87	37
2	64	292	190	100	155	80	300	2,090	264	134	73	38
3	71	312	194	98	145	88	290	2,370	204	116	74	37
4	66	292	191	102	140	78	250	3,300	174	101	66	38
5	63	265	188	116	135	74	235	3,130	144	92	58	39
6	62	269	180	135	140	*80	223	2,560	125	97	54	68
7	59	281	175	120	135	90	233	2,110	137	94	50	59
8	62	323	190	112	125	108	273	2,030	130	80	48	57
9	60	2,280	225	106	120	98	299	1,250	112	79	47	49
10	60	1,130	215	102	116	86	1,540	1,120	122	158	46	46
11	58	671	150	100	112	78	1,290	1,060	258	137	43	44
12	58	451	165	98	110	90	*995	841	195	120	42	42
13	58	*353	150	96	108	215	759	747	149	188	43	43
14	57	288	140	94	106	235	568	867	122	149	41	42
15	59	240	130	92	104	160	475	663	112	110	39	108
16	107	220	125	90	102	130	451	541	107	90	37	243
17	255	175	122	88	114	180	442	442	162	79	38	125
18	236	180	118	88	110	260	475	406	183	72	65	112
19	162	175	114	90	100	170	568	328	152	66	50	85
20	134	179	112	102	96	140	776	273	210	66	42	72
21	130	167	110	106	94	125	867	233	463	78	39	66
22	130	160	*108	110	94	118	692	223	337	79	36	110
23	148	102	104	108	104	135	885	328	237	66	34	127
24	182	220	102	102	108	270	1,660	281	3,400	60	46	99
25	159	260	104	94	102	500	2,620	240	2,210	58	59	84
26	137	237	116	106	92	920	2,240	211	1,030	57	48	73
27	1,110	216	122	150	100	680	1,510	189	578	63	44	70
28	1,060	200	114	290	116	540	1,310	163	362	79	42	70
29	1,270	190	108	235	102	480	1,250	142	262	80	39	415
30	739	180	106	200	-	410	1,700	127	198	107	38	305
31	479	-	104	*180	-	350	-	122	-	110	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,357	1,270	57	237	1.20	1.38
November	10,661	2,280	102	355	1.79	2.00
December	4,457	225	102	144	.727	.84
Calendar year 1943	139,165	3,560	57	381	1.92	26.14
January	3,712	290	88	120	.606	.70
February	3,350	165	92	116	.586	.63
March	7,060	920	74	228	1.15	1.33
April	25,496	2,620	223	850	4.29	4.79
May	30,507	3,300	122	984	4.97	5.73
June	12,455	3,400	107	415	2.10	2.34
July	3,028	188	57	97.7	.493	.57
August	1,506	87	34	48.6	.245	.28
September	2,803	415	37	93.4	.472	.53
Water year 1943-44	112,392	3,400	34	307	1.55	21.12

Peak discharge.- May 4 (11:45 p.m.) 3,970 sec.-ft.; June 24 (5:30 p.m.) 9,420 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 17-19, 22-25, Nov. 28 to Dec. 2, Dec. 6 to Apr. 5.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Bouquet River at Willsboro, N. Y.

Location.- Water-stage recorder, lat. 44°21'30", long. 73°23'50", half a mile southwest of Willsboro, Essex County.

Drainage area.- 275 square miles.

Records available.- August and September 1904 (gage heights and discharge measurements only), August to November 1908, July 1923 to September 1944.

Average discharge.- 21 years (1923-44), 295 second-feet.

Extremes.- Maximum discharge during year, 3,450 second-feet June 25; maximum gage height, 6.66 feet Mar. 25 (backwater from ice); minimum discharge, 48 second-feet Aug. 12 (gage height, 2.26 feet).

1923-44: Maximum discharge, about 11,800 second-feet Oct. 1, 1924 (gage height, 10.85 feet), from rating curve extended above 4,600 second-feet by logarithmic plotting; minimum, 10 second-feet Nov. 26, 1941 (gage height, 1.87 feet).

Remarks.- Records good except those for periods of ice effect, which are fair. Occasional slight diurnal fluctuation at low flow caused by power plants above station.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 25

2.4	70	3.5	582
2.6	116	4.0	960
2.8	182	4.5	1,390
3.1	326	4.9	1,800

Mar. 25 to Sept. 30

2.2	40	2.8	194	4.5	1,340
2.3	54	3.1	334	5.0	1,830
2.4	73	3.5	567	6.0	3,010
2.6	124	4.0	920		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	315	260	140	225	135	726	1,660	281	167	114	53
2	80	262	270	135	210	118	712	1,590	289	134	100	54
3	76	253	290	135	200	124	698	1,300	224	118	112	56
4	80	243	288	140	195	112	593	1,630	179	118	99	51
5	83	224	283	155	190	106	524	1,650	171	104	79	51
6	78	224	270	180	210	116	457	1,240	160	124	69	54
7	80	229	260	185	185	*130	499	1,000	179	104	65	58
8	76	253	290	165	175	150	555	1,150	171	99	65	56
9	76	1,760	320	150	165	145	561	920	140	96	76	54
10	74	1,400	288	145	155	124	*1,630	712	164	243	68	54
11	74	668	225	140	155	112	2,260	712	256	254	64	53
12	74	488	240	135	150	120	1,400	593	246	194	53	51
13	78	391	215	135	145	230	1,270	524	183	207	58	53
14	80	*338	200	130	145	350	952	499	153	160	56	60
15	85	294	190	130	140	290	775	457	140	127	59	94
16	118	272	180	125	145	210	691	422	137	110	75	163
17	296	230	175	118	165	230	761	383	178	99	81	113
18	305	234	170	122	160	320	790	345	203	96	160	96
19	195	224	165	125	140	300	912	309	167	82	129	79
20	157	229	160	130	135	230	1,200	284	179	102	80	60
21	150	224	155	145	130	185	1,260	265	284	125	69	62
22	137	235	155	150	135	170	976	256	294	131	64	88
23	134	143	*150	155	145	180	1,080	299	228	91	58	90
24	137	268	145	145	150	430	1,710	284	408	89	65	80
25	140	404	145	135	140	940	3,000	251	2,200	87	71	71
26	134	398	155	140	125	2,000	2,320	228	692	82	67	67
27	636	315	175	200	135	1,540	1,640	216	434	87	64	78
28	900	330	170	320	150	1,210	1,450	190	309	104	60	64
29	1,020	290	155	360	165	1,130	1,280	175	246	96	58	94
30	680	270	150	*270	-	858	1,560	164	190	136	58	184
31	429	-	145	240	-	740	-	156	-	150	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,736	1,020	74	217	0.789	0.91
November	11,408	1,760	143	380	1.38	1.54
December	6,439	320	145	208	.756	.87
Calendar year 1943	128,447	1,880	72	352	1.28	17.37
January	5,080	360	118	164	.596	.69
February	4,665	225	125	161	.585	.63
March	13,035	2,000	106	420	1.53	1.76
April	34,242	3,000	457	1,141	4.15	4.63
May	19,864	1,660	156	641	2.33	2.69
June	9,085	2,200	137	303	1.10	1.23
July	3,916	254	82	126	.453	.53
August	2,350	160	53	75.8	.273	.32
September	2,241	184	51	74.7	.272	.30
Water year 1943-44	119,061	3,000	51	325	1.18	16.10

Peak discharge.- Apr. 11 (4:50 a.m.) 2,750 sec.-ft.; Apr. 25 (7:30 a.m.) 3,240 sec.-ft.; June 25 (7:30 a.m.) 3,450 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 17, 22, Nov. 28 to Dec. 3, Dec. 6-9, Dec. 11 to Mar. 26.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Lake George at Rogers Rock, N. Y.

Location.- Water-stage recorder, lat. 43°48'10", long. 73°27'25", about 500 feet north of Hooper's dock, on south side of Stones Bay, Rogers Rock, Essex County. Datum of gage is 315.93 feet above mean sea level, adjustment of 1912.

Records available.- July 1913 to September 1944.

Extremes.- Maximum gage height during year, 4.30 feet Apr. 25; minimum, 1.78 feet Mar. 6. 1913-44: Maximum gage height observed, 5.09 feet Apr. 9, 1936; minimum, 0.64 foot Dec. 20, 1941.

Remarks.- Elevation of lake surface regulated by power plant and floodgates at Ticonderoga. Lake George has been controlled by operation of a dam at its outlet for more than 100 years.

Gage height, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.82	2.59	2.93	2.49	2.29	2.02	2.49	4.14	3.78	3.85	3.75	3.02
2	2.78	2.60	2.94	2.49	2.28	1.99	2.54	4.14	3.76	3.82	3.75	3.03
3	2.71	2.57	2.91	2.48	2.25	1.98	2.58	4.10	3.67	3.82	3.72	2.99
4	2.72	2.55	2.93	2.45	2.23	1.95	2.62	4.07	3.73	3.82	3.72	2.98
5	2.71	2.54	2.91	2.44	2.22	1.94	2.64	4.02	3.78	3.85	3.70	2.95
6	2.73	2.54	2.90	2.49	2.20	1.95	2.68	4.00	3.76	3.82	3.63	2.93
7	2.69	2.53	2.87	2.50	2.17	1.99	2.69	3.96	3.75	3.81	3.59	2.97
8	2.67	2.56	2.91	2.48	2.14	1.99	2.72	3.99	3.72	3.80	3.59	2.91
9	2.60	2.83	2.91	2.49	2.13	1.97	2.78	3.93	3.69	3.77	3.59	2.84
10	2.54	2.92	2.86	2.50	2.10	1.95	3.02	3.91	3.69	3.77	3.58	2.80
11	2.59	2.88	2.85	2.49	2.06	1.96	3.31	3.87	3.73	3.80	3.56	2.79
12	2.56	2.93	2.85	2.49	2.08	1.95	3.46	3.84	3.78	3.94	3.52	2.77
13	2.53	2.93	2.80	2.47	2.11	1.94	3.63	3.85	3.71	3.94	3.49	2.81
14	2.54	2.92	2.76	2.45	2.09	1.92	3.68	3.87	3.73	3.89	3.49	2.91
15	2.49	2.92	2.72	2.40	2.16	1.93	3.69	3.87	3.75	3.88	3.47	2.99
16	2.54	2.86	2.69	2.38	2.11	1.94	3.74	3.88	3.72	3.88	3.44	3.02
17	2.61	2.90	2.70	2.40	2.11	1.98	3.78	3.88	3.69	3.81	3.44	3.01
18	2.58	2.91	2.70	2.37	2.10	1.99	3.80	3.75	3.62	3.78	3.42	3.03
19	2.54	2.90	2.69	2.37	2.12	1.98	3.84	3.81	3.69	3.79	3.36	3.00
20	2.51	2.86	2.67	2.35	2.12	1.99	3.84	3.80	3.67	3.80	3.34	2.97
21	2.48	2.84	2.69	2.32	2.10	2.00	3.89	3.78	3.68	3.81	3.33	2.98
22	2.46	2.84	2.62	2.32	2.08	2.00	3.93	3.81	3.72	3.80	3.28	3.03
23	2.44	2.91	2.58	2.30	2.10	2.02	3.97	3.84	3.70	3.76	3.24	2.98
24	2.39	2.99	2.57	2.34	2.10	2.08	4.04	3.85	3.84	3.75	3.23	2.96
25	2.38	3.03	2.57	2.33	2.06	2.11	4.18	3.84	3.92	3.72	3.22	2.96
26	2.35	3.00	2.58	2.32	2.07	2.18	4.22	3.84	3.95	3.70	3.18	2.91
27	2.48	3.00	2.60	2.33	2.07	2.24	4.20	3.83	3.93	3.69	3.14	2.85
28	2.54	2.96	2.60	2.29	2.06	2.31	4.19	3.80	3.92	3.71	3.14	2.86
29	2.67	2.94	2.58	2.30	2.03	2.34	4.21	3.78	3.91	3.72	3.13	2.89
30	2.62	2.94	2.56	2.29	-	2.39	4.20	3.78	3.88	3.78	3.07	2.85
31	2.58	-	2.54	2.29	-	2.45	-	3.77	-	3.78	3.03	-

Monthly gage height, in feet, water year October 1943 to September 1944

Month	Maximum	Minimum	Mean
October	2.82	2.35	2.58
November	3.03	2.53	2.82
December	2.94	2.54	2.74
Calendar year 1943	4.07	2.35	3.20
January	2.50	2.29	2.40
February	2.29	2.03	2.13
March	2.45	1.92	2.05
April	4.22	2.49	3.49
May	4.14	3.75	3.89
June	3.95	3.62	3.76
July	3.94	3.69	3.80
August	3.75	3.03	3.42
September	3.03	2.77	2.93
Water year 1943-44	4.22	1.92	3.00

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Lake George Outlet at Ticonderoga, N. Y.

Location.- Water-stage recorder and concrete control on river channel, lat. 43°50'35", long. 73°26'00", at Ticonderoga, Essex County, 250 feet downstream from "C" Mill dam of International Paper Co., 250 feet upstream from Trout Brook, and half a mile downstream from upper dam ("A" Mill dam) of International Paper Co. Turbine gate-opening recorder, 250 feet upstream, on tailrace. Datum of gage on river channel is 190.41 feet above mean sea level, datum of 1929.

Drainage area.- 234 square miles.

Records available.- October 1942 to September 1944. August 1904 to December 1905 at site at "B" Mill 2,000 feet upstream.

Extremes (regulated).- Maximum daily discharge during year, 1,140 second-feet Apr. 29; minimum daily, 43 second-feet Sept. 4.
1942-44: Maximum daily discharge, that of Apr. 29, 1944; minimum daily, that of Sept. 4, 1944.

Remarks.- Records excellent. Discharge in tailrace determined from rating for turbine gates developed from discharge measurements. Records represent total discharge from Lake George and include flow in river channel and in tailrace. Flow regulated by Lake George and three power plants.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	223	183	259	271	262	263	257	1,110	323	262	293	267
2	221	226	258	133	254	240	166	1,130	301	112	288	249
3	114	231	256	213	252	262	207	1,120	301	97	283	140
4	186	226	259	262	255	262	251	1,120	207	62	284	43
5	236	227	152	260	258	206	254	1,080	247	211	284	199
6	237	221	212	262	224	243	254	1,090	287	263	176	258
7	237	85	261	266	238	262	261	1,040	285	263	230	252
8	231	252	261	254	261	262	260	1,050	285	265	271	247
9	225	200	261	131	262	262	113	1,040	285	123	267	238
10	170	196	261	210	260	260	195	1,030	285	211	277	147
11	211	373	260	259	260	260	258	1,010	100	263	287	219
12	226	215	245	258	260	222	262	701	212	299	285	257
13	235	215	262	260	259	242	544	422	256	504	174	254
14	268	101	266	260	259	249	751	203	252	419	256	249
15	240	189	266	259	260	259	728	277	256	391	286	250
16	230	232	266	130	259	266	589	345	251	266	292	248
17	105	228	266	219	250	267	673	340	248	255	289	137
18	184	237	262	262	261	262	757	333	195	305	289	206
19	234	257	241	257	260	193	757	340	228	303	289	250
20	231	257	266	259	207	236	773	336	257	303	149	251
21	228	135	262	262	240	268	773	238	241	303	240	248
22	230	224	271	261	261	268	812	289	242	303	283	259
23	228	232	271	210	265	268	738	347	246	177	283	259
24	103	230	210	242	312	262	881	324	378	260	280	118
25	178	236	94	258	265	258	1,120	320	758	297	280	218
26	232	255	73	259	262	146	1,130	315	960	300	278	261
27	212	255	208	257	200	208	1,130	343	874	302	155	261
28	219	147	270	261	243	247	1,110	243	552	297	231	259
29	201	213	267	257	264	250	1,140	263	288	297	273	253
30	208	259	272	275	-	249	1,120	329	266	172	274	250
31	102	-	271	241	-	253	-	324	-	267	275	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,385	268	102	206	-	-
November	6,537	373	85	218	-	-
December	7,509	272	73	242	-	-
Calendar year 1943	119,112	1,100	61	326	1.39	18.93
January	7,468	275	130	241	-	-
February	7,373	312	200	254	-	-
March	7,657	268	146	247	-	-
April	18,264	1,140	113	609	-	-
May	18,452	1,130	203	595	-	-
June	9,866	960	100	329	-	-
July	8,152	504	62	263	-	-
August	8,101	293	149	261	-	-
September	6,747	267	43	225	-	-
Water year 1943-44	112,511	1,140	43	307	1.31	17.88

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Poultney River below Fair Haven, Vt.

Location.- Water-stage recorder, lat. 43°37'40", long. 73°18'50", a third of a mile downstream from Carver Falls, 1.9 miles upstream from Hubbardton River, and 3¼ miles northwest of Fair Haven, Rutland County.

Drainage area.- 187 square miles.

Records available.- October 1928 to September 1944.

Average discharge.- 16 years, 241 second-feet.

Extremes.- Maximum discharge during year, 5,370 second-feet Apr. 10, from rating curve extended above 1,900 second-feet on basis of computations of flow over dam at gage heights 16.10 feet and 21.40 feet; maximum gage height, 16.13 feet Mar. 26 (ice jam); minimum discharge, 9.4 second-feet (regulated) Oct. 21, 22; minimum daily, 11 second-feet (regulated) Oct. 3, 10.

1928-44: Maximum discharge, 10,300 second-feet Sept. 22, 1938, from rating curve extended above 1,200 second-feet on basis of computations of flow over dam at gage height 16.10 feet and 21.40 feet; maximum gage height, 22.90 feet Mar. 12, 1936 (ice jam); minimum discharge, 2.3 second-feet (regulated) July 18, 1937; minimum daily, 2.9 second-feet (regulated) Oct. 13, 1935.

Remarks.- Records good except those above 300 second-feet and those for periods of ice effect or no gage-height record, which are fair. Flow regulated by power plant above station and by Lake Bomoseen.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	185	259	150	110	80	930	423	62	119	82	66
2	104	121	256	55	130	75	1,000	469	65	55	58	18
3	11	163	248	130	125	60	950	441	64	53	60	20
4	75	152	248	140	60	80	893	415	49	61	61	20
5	80	115	215	190	35	65	769	303	46	64	58	66
6	100	130	228	170	50	80	693	293	51	54	43	52
7	100	105	251	170	80	*85	682	238	59	55	119	49
8	98	195	244	65	50	95	731	333	66	59	96	49
9	64	948	241	50	75	115	647	313	58	34	97	21
10	11	803	261	90	*55	100	*2,890	293	70	46	84	20
11	80	485	269	130	65	110	2,680	292	108	40	85	20
12	80	402	244	140	60	90	1,930	278	126	237	52	20
13	82	345	280	130	35	150	1,910	211	71	177	22	49
14	82	293	270	145	75	250	1,220	180	70	145	70	62
15	90	261	270	45	60	450	963	204	50	89	79	50
16	61	256	280	50	65	500	912	236	78	51	78	60
17	141	246	270	100	70	660	977	136	63	49	76	14
18	171	231	270	95	90	1,050	980	129	21	76	80	18
19	114	207	120	135	80	850	901	134	64	74	33	26
20	112	202	170	125	85	650	853	162	62	72	27	24
21	117	185	250	120	105	560	848	79	97	101	67	27
22	113	224	310	80	33	330	842	156	95	84	70	109
23	91	270	270	15	75	330	586	230	89	56	78	61
24	61	251	220	90	70	1,350	678	134	204	66	79	16
25	111	274	170	125	100	1,500	1,040	81	370	73	72	31
26	83	259	15	140	120	2,250	923	87	257	76	22	32
27	162	264	150	125	40	2,200	790	89	183	79	24	32
28	229	272	140	150	85	1,600	661	78	182	142	68	31
29	238	282	270	85	82	1,350	568	79	120	58	70	31
30	248	267	230	125	-	1,100	423	55	144	98	68	41
31	148	-	220	50	-	910	-	72	-	118	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,361	248	11	108	0.578	0.67
November	8,393	948	105	280	1.50	1.67
December	7,139	310	15	230	1.23	1.42
Calendar year 1943	107,137	2,030	11	294	1.57	21.30
January	3,410	190	15	110	.588	.68
February	2,165	130	33	74.7	.399	.43
March	19,075	2,250	60	615	3.29	3.79
April	30,870	2,890	423	1,029	5.50	6.14
May	6,623	469	55	214	1.14	1.32
June	3,044	370	21	101	.540	.61
July	2,561	237	34	82.6	.442	.51
August	2,051	119	22	66.2	.354	.41
September	1,135	109	14	37.8	.202	.23
Water year 1943-44	89,827	2,890	11	245	1.31	17.88

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 13 to Apr. 3 (no gage-height record Dec. 13-31, Jan. 8 to Feb. 10; discharge computed on basis of 2 discharge measurements, engineers' notes, weather records, and power-plant records). Discharge in second-feet per square mile and run-off in inches may not represent natural flow because of regulation.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Otter Creek at Center Rutland, Vt.

Location.- Water-stage recorder, lat. 43°36'15", long. 73°00'50", at highway bridge in Center Rutland, Rutland County, 200 feet downstream from dam, 1.2 miles downstream from East Creek, and 1½ miles west of Rutland.
Drainage area.- 307 square miles.
Records available.- May 1928 to September 1944.
Average discharge.- 16 years, 542 second-feet.
Extremes.- Maximum discharge during year, 4,250 second-feet Apr. 11 (gage height, 7.52 feet); minimum daily, 62 second-feet (regulated) Sept. 4.
1928-44: Maximum discharge, 13,700 second-feet Sept. 22, 1938 (gage height, 12.45 feet), by computation of flow over dam; minimum daily, 55 second-feet (regulated) July 5, 1941.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by power plants and by East Pittsford and Chittenden Reservoirs on East Creek (see p. 190).

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1-17		Oct. 18 to Mar. 26		Mar. 27 to Sept. 30			
0.8	126	3.0	875	0.3	54	2.5	625
1.1	186	3.5	1,160	.5	78	3.0	875
1.5	290	4.0	1,490	.8	123	4.0	1,460
2.0	450	5.0	2,270	1.2	201	5.5	2,570
2.5	665	5.8	3,030	1.5	273	7.0	3,780
3.1	970	Note.- Same as following table below 3.0 feet.		2.0	426		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	220	470	506	170	260	220	812	1,610	233	280	179	114
2	188	440	500	160	230	210	874	1,610	211	230	180	97
3	156	410	503	220	240	200	1,050	1,380	180	200	193	74
4	205	390	499	210	220	190	926	1,420	152	170	163	62
5	205	370	427	210	210	140	815	1,440	189	180	128	138
6	208	340	426	230	160	190	755	1,210	190	160	91	147
7	191	300	*518	230	230	220	804	955	322	145	136	158
8	188	650	491	220	220	*330	971	1,140	297	130	156	147
9	150	2,300	480	155	200	320	1,090	905	217	115	147	104
10	128	2,850	590	260	*210	270	*3,040	702	311	140	150	70
11	186	1,550	430	220	*200	210	3,710	764	892	200	136	113
12	182	929	240	220	190	190	2,570	684	438	235	117	129
13	168	777	360	220	160	480	1,920	547	278	261	85	196
14	184	608	290	220	200	766	1,420	605	228	195	146	348
15	222	591	280	200	220	546	1,120	499	230	150	143	626
16	317	579	270	150	230	393	1,350	446	320	123	133	445
17	922	527	250	240	230	885	1,540	396	340	147	131	215
18	724	496	270	210	240	1,420	1,400	352	240	150	133	190
19	424	472	250	200	210	861	1,480	309	260	144	103	180
20	346	552	330	210	150	674	1,610	276	390	169	72	180
21	339	429	290	210	210	569	1,710	260	410	268	127	183
22	318	560	260	210	210	497	1,550	527	360	242	121	395
23	270	488	260	150	230	532	1,450	660	340	170	116	182
24	228	555	190	220	250	1,200	1,700	404	600	193	141	139
25	288	549	165	200	260	1,500	2,300	316	1,250	221	138	178
26	289	562	170	210	220	1,820	2,430	285	800	191	112	172
27	725	508	270	262	170	1,800	2,040	251	500	221	84	167
28	927	519	300	428	220	1,390	1,720	248	380	303	154	174
29	928	532	270	357	230	1,200	1,500	238	340	246	133	217
30	743	495	220	240	-	1,050	1,490	192	360	196	132	188
31	505	-	210	250	-	869	-	211	-	246	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	11,074	928	128	357	1.16	1.34
November	20,828	2,850	300	694	2.26	2.52
December	10,515	590	165	339	1.10	1.27
Calendar year 1943	225,249	3,070	128	617	2.01	27.27
January	6,892	428	150	222	.723	.83
February	6,210	260	150	214	.697	.75
March	21,145	1,820	140	682	2.22	2.56
April	47,147	3,710	755	1,572	5.12	5.71
May	20,845	1,610	192	672	2.19	2.53
June	11,258	1,250	152	375	1.22	1.36
July	6,021	303	115	194	.632	.73
August	4,094	193	72	132	.430	.50
September	5,718	626	62	191	.622	.69
Water year 1943-44	171,747	3,710	62	469	1.53	20.79

Peak discharge.- Nov. 10 (9 to 10 a.m.) 3,160 sec.-ft.; Apr. 11 (1 to 3 a.m.) 4,250 sec.-ft.
* Winter discharge measurement made on this day.
Note.- No gage-height record Nov. 1-9, June 15 to July 11; discharge computed on basis of 1 discharge measurement, recorded range in stage where available, weather records, and records for Otter Creek at Middlebury and East Creek at Rutland. Stage-discharge relation affected by ice Dec. 10 to Jan. 26, Jan. 30 to Mar. 13, Mar. 24-27.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Otter Creek at Middlebury, Vt.

Location.- Water-stage recorder, lat. 44°00'45", long. 73°10'05", 150 feet upstream from highway bridge in Middlebury, Addison County, and 3½ miles downstream from Middlebury River.

Drainage area.- 628 square miles.

Records available.- April 1903 to May 1907, October 1910 to January 1920, October 1928 to September 1944.

Average discharge.- 28 years (1903-6, 1910-19, 1928-44), 964 second-feet.

Extremes.- Maximum discharge during year, 3,830 second-feet Apr. 17 (gage height, 5.41 feet); minimum, 137 second-feet Sept. 5.

1903-7, 1910-20, 1928-44: Maximum discharge, 11,000 second-feet Mar. 20, 21, 1936 (gage height, 10.3 feet); minimum, 93 second-feet Mar. 5, 1929.

Maximum discharge known, 13,600 second-feet Nov. 4, 1927 (gage height, 13.3 feet, present datum, at chain-gage site 1,800 feet upstream), from rating curve extended above 9,000 second-feet by logarithmic plotting.

Remarks.- Records good except those for periods of ice effect, which are fair. Some regulation by Chittenden and East Pittsford Reservoirs on East Creek (see p. 190).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	296	1,180	998	410	430	450	3,530	3,100	399	643	364	219
2	314	975	975	340	430	440	3,290	3,030	426	482	305	200
3	296	900	960	270	450	420	3,060	2,930	g405	393	275	180
4	252	870	960	360	440	410	2,860	2,850	g364	352	267	146
5	305	818	922	400	400	370	2,680	2,740	g284	305	263	156
6	323	748	832	390	370	330	2,460	2,620	g352	323	225	203
7	309	706	*870	400	340	376	2,250	2,510	g370	284	180	217
8	309	720	945	390	420	*454	2,110	2,400	g433	249	211	214
9	296	2,180	938	370	410	545	*2,060	2,220	g468	232	225	208
10	252	2,420	1,010	300	360	580	2,760	2,080	419	211	219	197
11	232	2,400	1,020	370	*370	520	3,010	1,880	724	267	214	173
12	296	2,420	670	410	390	440	3,040	1,610	990	329	211	175
13	284	2,420	520	400	380	520	3,230	1,320	727	741	205	192
14	309	2,320	700	390	330	1,070	3,510	1,160	517	573	183	284
15	309	2,100	630	380	390	1,330	3,730	1,080	405	393	197	468
16	461	1,830	570	370	430	1,170	3,820	960	376	300	211	762
17	658	1,530	530	300	440	1,240	3,780	855	482	235	217	601
18	1,440	1,260	510	370	440	1,680	3,640	755	503	256	222	358
19	1,260	1,090	500	390	440	1,780	3,470	685	393	245	217	288
20	982	1,020	500	370	400	1,730	3,350	615	447	235	195	263
21	855	975	580	360	330	1,600	3,250	538	664	296	171	245
22	762	915	560	370	380	1,440	3,160	629	713	352	195	608
23	685	982	520	380	420	1,320	3,090	1,070	636	337	203	594
24	580	945	470	340	440	1,720	3,070	1,060	594	275	211	405
25	503	1,060	380	360	470	2,020	3,150	804	1,190	280	217	252
26	545	1,070	310	370	470	2,350	3,130	650	1,520	275	208	263
27	928	1,110	300	420	430	2,500	3,090	559	1,420	296	197	263
28	1,560	1,070	480	540	360	2,650	3,090	503	1,060	454	183	259
29	1,830	1,050	550	680	420	3,300	3,110	447	762	503	197	292
30	1,760	1,050	500	640	-	3,750	3,120	381	657	447	205	332
31	1,520	-	460	500	-	3,690	-	364	-	376	208	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	20,711	1,830	232	668	1.06	1.23
November	40,134	2,420	706	1,338	2.13	2.38
December	20,670	1,020	300	667	1.06	1.22
Calendar year 1943	399,581	3,290	232	1,095	1.74	23.67
January	12,340	680	270	398	.634	.73
February	11,780	470	330	406	.646	.70
March	42,195	3,750	330	1,361	2.17	2.50
April	92,900	3,820	2,060	3,097	4.93	5.50
May	44,405	3,100	364	1,432	2.28	2.63
June	18,700	1,520	284	623	.992	1.11
July	10,939	741	211	353	.562	.65
August	6,801	364	171	219	.349	.40
September	9,017	762	146	301	.479	.53
Water year 1943-44	330,592	3,820	146	903	1.44	19.58

* Winter discharge measurement made on this day.
g Computed from graph based on once-daily gage readings.
Note.- Stage-discharge relation affected by ice Dec. 11 to Mar. 6, Mar. 10-13, 18, 19, 28-30.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

East Creek at Rutland, Vt.

Location.- Water-stage recorder, lat. 43°37'40", long. 72°59'20", at Rutland, Rutland County, on grounds of Rutland Country Club, 280 feet downstream from Grove Street covered bridge and 2 miles upstream from mouth.
Drainage area.- 51.1 square miles.
Records available.- August 1940 to September 1944.
Extremes.- Maximum discharge during year, 1,020 second-feet Apr. 10 (gage height, 3.52 feet); minimum daily, 10 second-feet (regulated) Aug. 6, 13.
1940-44: Maximum discharge, 1,480 second-feet Sept. 2, 1940 (gage height, 3.96 feet), from rating curve extended above 600 second-feet by logarithmic plotting; minimum daily, that of Aug. 6, 13, 1944.
Maximum discharge known, 5,300 second-feet Sept. 21, 1938, by computation of flow over dam a quarter of a mile above gage.
Remarks.- Records excellent except those for periods of shifting control, which are good. Diversion above station from Mendon Brook for supply of Rutland. Flow regulated by power plants and by Chittenden and East Pittsford Reservoirs which have a combined usable capacity of 969,800,000 cubic feet (see p. 190).

Rating tables, water year 1943-44, except periods of shifting control (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 9

0.8	11	1.3	54	2.2	314
.9	15	1.4	72	2.6	475
1.0	20	1.5	94	3.0	680
1.1	28	1.6	119		
1.2	39	1.8	178		

May 10 to Sept. 30

0.7	7.9	1.2	39
.8	11	1.3	53
.9	15	1.4	71
1.0	20	1.5	92
1.1	28	1.7	140

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	104	146	34	104	99	157	204	77	19	62	78
2	80	110	159	27	101	108	97	192	50	25	75	46
3	53	114	154	133	102	84	157	158	35	24	76	11
4	97	100	127	112	101	82	166	197	15	16	60	12
5	107	108	47	102	90	18	147	194	67	27	32	111
6	107	93	106	120	22	90	117	159	74	17	10	84
7	91	44	73	113	94	102	128	113	77	16	70	84
8	102	133	109	102	104	103	125	139	51	16	89	86
9	55	380	125	22	97	93	131	92	49	21	78	41
10	20	202	136	138	113	89	640	87	104	46	87	13
11	113	161	113	102	102	66	269	81	94	70	78	76
12	91	135	27	111	94	26	210	64	42	36	60	91
13	81	130	123	112	53	105	167	65	41	48	10	18
14	96	60	110	108	104	138	113	71	42	38	107	70
15	114	134	89	92	115	111	114	57	69	15	86	48
16	92	134	109	23	104	99	140	61	97	18	80	47
17	160	111	75	132	92	182	184	45	57	51	76	13
18	112	123	83	106	107	185	150	50	24	58	86	63
19	99	116	51	98	96	55	175	40	72	71	43	74
20	95	146	126	109	22	115	192	29	67	88	12	86
21	109	40	98	107	98	116	199	33	58	88	100	84
22	98	141	83	101	94	112	141	137	48	37	88	125
23	74	90	106	23	107	133	151	68	38	15	73	13
24	31	105	46	118	106	229	223	37	121	81	85	15
25	96	117	14	98	108	223	248	29	121	80	77	93
26	104	142	28	110	81	251	226	45	58	69	48	67
27	152	68	111	123	26	218	202	28	49	100	28	78
28	132	65	104	106	97	202	196	29	28	56	97	93
29	167	131	92	85	103	190	177	41	66	57	83	68
30	110	129	77	26	-	164	129	16	65	58	84	29
31	44	-	84	94	-	147	-	55	-	71	58	-

Month	Observed				Change in contents and diversion (equivalent, second-feet)†	Adjusted		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	3,016	167	20	97.3	-13.3	84.0	1.64	1.90
November	3,666	380	40	122	+24.4	147	2.88	3.20
December	2,994	159	14	96.6	-27.1	69.5	1.36	1.57
Calendar year 1943	41,817	525	14	115	+7.09	122	2.39	32.33
January	2,887	138	22	93.1	-60.7	32.5	.636	.73
February	2,637	115	22	90.9	-44.5	46.4	.908	.98
March	3,935	251	18	127	-4.13	123	2.41	2.77
April	5,471	640	97	182	+131	314	6.14	6.85
May	2,616	204	16	84.4	+48.9	133	2.60	3.01
June	1,856	121	15	61.9	+12.9	74.8	1.46	1.63
July	1,432	100	15	46.2	-4.48	41.7	.816	.94
August	2,098	107	10	67.7	-52.6	15.0	.294	.34
September	1,817	125	11	60.6	-27.4	33.2	.650	.72
Water year 1943-44	34,425	640	10	94.1	-1.54	92.5	1.81	24.64

† Change in contents in Chittenden and East Pittsford Reservoirs and diversion fror Mendon Brook for supply of Rutland.
Note.- Shifting-control method used May 10-29, May 31 to June 6.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

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Winooski River at Montpelier, Vt.

Location.- Water-stage recorder, lat. 44°15'25", long. 72°35'35", three-eighths of a mile upstream from Dog River and 1 mile downstream from depot in Montpelier, Washington County. Datum of gage is 499.99 feet above mean sea level, datum of 1929.
Drainage area.- 397 square miles.
Records available.- May 1909 to September 1923, August 1928 to September 1944.
Average discharge.- 25 years (1914-23, 1928-44), 580 second-feet (adjusted for change in reservoir contents since October 1938).
Extremes.- Maximum discharge during year, 6,260 second-feet Apr. 10 (gage height, 9.66 feet); minimum daily, 47 second-feet (regulated) Sept. 3.

1909-23, 1928-44: Maximum discharge, 20,200 second-feet Apr. 7, 1912 (gage height, about 16.7 feet, present datum), from rating curve extended above 10,000 second-feet on basis of slope-area determination at gage height 27.1 feet; minimum, 6 second-feet (regulated) Sept. 30, 1921 (gage height, 2.58 feet); minimum daily, 17 second-feet (regulated) Sept. 3, 1933.

Maximum discharge known, 57,000 second-feet Nov. 3, 1927 (gage height, 27.1 feet), by slope-area method.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow regulated by several small power plants above station and by Peacham Pond and Mollys Falls Reservoir (combined usable capacity, 492,000,000 cubic feet; see p. 190), which regulate runoff from 24 square miles, and since 1935 by East Barre and Wrightsville Detention Reservoirs (combined usable capacity, 1,379,500,000 cubic feet; see pp. 206, 208).

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 10				Apr. 11 to Sept. 30			
3.2	96	5.0	990	2.9	39	3.5	160
3.4	146	5.5	1,420	3.0	51	3.7	235
3.7	240	6.5	2,400	3.1	65	4.0	365
4.0	370	7.5	3,560	3.2	82	4.5	630
4.5	640	8.1	4,280	3.3	104	5.0	990

Note.- Same as preceding table above 5.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	640	560	210	270	*250	882	2,310	298	195	155	132
2	232	587	*540	*160	260	230	1,090	2,260	234	150	138	85
3	224	570	542	150	*250	220	1,250	2,060	188	160	142	47
4	200	547	492	200	240	220	1,130	2,050	159	97	134	60
5	228	506	435	220	210	170	*1,070	2,010	178	133	118	91
6	206	485	370	230	210	170	990	1,900	154	200	65	152
7	199	455	490	250	200	210	1,140	1,670	205	178	103	130
8	204	639	460	250	230	200	1,140	2,480	178	107	96	130
9	159	3,190	520	200	200	210	1,280	1,970	174	93	120	116
10	103	1,930	508	200	230	200	4,260	1,720	161	200	128	51
11	136	1,420	340	250	240	170	3,440	1,670	354	245	101	77
12	169	1,230	300	260	240	170	2,890	1,430	251	181	112	106
13	174	1,100	380	260	180	250	2,510	1,240	190	284	52	117
14	162	990	350	260	170	350	2,050	1,180	180	196	119	214
15	186	861	360	260	220	370	1,800	975	111	144	86	416
16	290	777	350	180	240	360	1,700	855	170	89	86	442
17	1,270	640	340	160	240	410	1,810	682	324	112	100	258
18	1,110	557	370	210	250	490	1,750	676	262	128	140	194
19	777	550	350	220	230	400	1,960	606	216	126	166	171
20	670	556	360	230	180	390	2,240	520	452	108	80	138
21	586	520	360	230	180	390	2,260	453	1,270	156	102	125
22	477	569	340	220	220	380	1,990	417	749	144	118	390
23	432	598	300	190	250	370	2,050	497	586	101	123	280
24	390	652	300	190	260	470	2,540	423	530	102	150	174
25	410	640	300	230	260	700	3,260	365	938	108	172	154
26	430	616	230	240	240	1,200	2,850	340	676	127	122	159
27	910	610	220	260	190	1,350	2,440	311	483	161	67	162
28	1,210	564	320	350	190	1,000	2,310	280	355	423	110	154
29	994	529	260	370	250	860	2,170	235	276	236	96	389
30	925	520	250	340	-	920	2,290	181	231	170	144	354
31	728	-	250	240	-	800	-	172	-	218	130	-

Month	Observed				Change in contents (equivalent, second-feet)†	Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	14,370	1,270	103	464	+20.4	484	1.22	1.41
November	24,048	3,190	455	802	-.07	802	2.02	2.25
December	11,567	560	220	373	-35.1	338	.851	.98
Calendar year 1943	238,676	3,560	85	649	-.34	649	1.63	22.17
January	7,240	370	150	234	-24.1	209	.526	.61
February	6,530	270	170	225	-35.6	190	.479	.52
March	13,880	1,350	170	448	-7.29	440	1.11	1.28
April	60,542	4,260	882	2,018	+170	2,188	5.51	6.15
May	33,938	2,480	172	1,095	-39.6	1,055	2.66	3.06
June	10,535	1,270	111	351	+7.03	358	.902	1.01
July	5,072	423	89	164	-12.4	151	.380	.44
August	3,575	172	52	115	-34.9	80.4	.203	.23
September	5,468	442	47	182	-14.6	168	.423	.47
Water year 1943-44	196,765	4,260	47	538	-.80	537	1.35	18.41

Peak discharge.- Nov. 9 (11 a.m.) 4,970 sec.-ft.; Apr. 10 (6 p.m.) 6,260 sec.-ft.; Apr. 25 (8:30 a.m.) 3,680 sec.-ft.

* Winter discharge measurement made on this day.

† Change in contents in Peacham Pond, Mollys Falls Reservoir, and East Barre and Wrightsville Detention Reservoirs.

Note.- Stage-discharge relation affected by ice Nov. 30, Dec. 1, 2, 6-8, Dec. 11 to Mar. 31.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Winooski River near Essex Junction, Vt.

Location.- Water-stage recorder, lat. 44°28'40", long. 73°08'20", half a mile downstream from Muddy Brook and 2 miles southwest of Essex Junction, Chittenden County.
Drainage area.- 1,044 square miles.
Records available.- October 1928 to September 1944.
Average discharge.- 16 years, 1,597 second-feet (adjusted for change in reservoir contents since October 1938).
Extremes.- Maximum discharge during year, 18,000 second-feet Nov. 9 (gage height, 11.00 feet); minimum daily, 112 second-feet (regulated) Sept. 10.
1928-44: Maximum discharge, 45,300 second-feet Mar. 19, 1936 (gage height, 23.54 feet), from rating curve extended above 25,000 second-feet on basis of slope-area determination and computation of flow over dam at gage heights 18.72 feet, 23.54 feet, and 50.4 feet; minimum daily, 70 second-feet (regulated) Sept. 25, 1937.
Maximum discharge known, 113,000 second-feet Nov. 4, 1927 (gage height, 50.4 feet, from floodmarks), by slope-area determination and computation of flow over dam.
Remarks.- Records good except those for period of ice effect, which are fair. Flow regulated by power plants above station and by Peacham Pond, Mollys Falls, and Waterbury Reservoirs (combined usable capacity, 3,304,300,000 cubic feet, see pp. 190, 212), which regulate runoff from 24 square miles and 109 square miles, respectively, and by East Barre and Wrightsville Detention Reservoirs (combined usable capacity, 1,379,500,000 cubic feet, see pp. 206, 208).

Rating tables, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 10

0.8	255	2.1	1,150	4.5	5,180
1.1	400	2.5	1,610	6.0	8,180
1.4	575	3.1	2,450	8.2	12,500
1.7	780	3.7	3,500		

Apr. 11 to Sept. 30

0.3	112	0.9	337	2.2	1,230
.4	140	1.2	499	2.6	1,690
.6	208	1.7	830	3.1	2,450

Note.- Same as preceding table above 3.1 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	508	2,450	1,150	500	720	840	2,250	6,820	737	593	744	608
2	408	2,210	1,350	470	660	810	2,800	6,860	709	654	593	378
3	258	2,300	1,350	1,000	600	780	3,100	6,120	525	810	592	134
4	651	2,220	1,340	880	630	540	2,780	6,940	426	470	584	115
5	670	2,040	*1,310	800	580	430	2,480	7,100	644	583	333	526
6	626	1,420	1,110	750	470	720	2,240	6,020	674	570	250	515
7	580	1,330	1,350	840	800	700	*2,300	5,200	669	528	500	504
8	562	1,350	1,360	700	750	640	2,780	6,100	737	304	527	496
9	375	11,700	1,070	450	680	640	2,420	5,640	706	256	560	298
10	278	7,830	1,480	880	700	690	9,020	4,970	555	622	556	112
11	474	3,980	1,300	850	720	600	12,400	5,240	327	987	519	519
12	506	3,180	680	820	650	380	7,040	4,390	855	727	192	522
13	506	3,220	1,100	850	450	900	6,060	3,900	565	913	118	522
14	507	2,920	1,350	820	820	1,100	4,740	3,860	589	1,040	520	493
15	536	2,090	1,400	730	750	940	3,920	2,380	630	596	546	956
16	690	2,380	1,450	500	770	960	3,520	1,900	708	387	525	1,350
17	3,280	2,270	1,300	760	790	1,400	4,030	1,570	660	654	580	853
18	3,590	2,070	1,200	730	820	1,600	3,800	1,890	667	680	596	550
19	1,940	2,010	850	760	700	1,500	4,240	1,510	721	661	374	546
20	1,600	2,010	880	740	500	1,400	5,320	1,330	732	604	120	540
21	1,590	1,950	1,200	720	820	1,360	5,560	1,100	2,020	579	503	664
22	1,410	2,000	1,400	590	700	1,320	4,720	1,150	2,160	494	494	867
23	1,230	2,070	1,200	450	770	1,300	5,340	1,160	1,500	451	479	957
24	1,120	2,080	1,150	720	820	1,500	6,280	1,090	1,850	601	564	295
25	1,100	2,160	1,250	750	770	1,900	9,020	965	3,790	530	541	799
26	1,360	2,090	1,000	780	680	3,700	7,440	871	2,090	570	364	641
27	1,790	1,790	660	820	460	3,900	6,180	740	1,430	734	236	590
28	4,060	1,900	900	1,000	750	3,100	5,760	572	1,100	874	521	640
29	4,330	1,600	1,100	900	770	2,600	5,400	690	892	984	523	737
30	3,430	1,190	1,100	840	-	2,400	6,340	570	892	305	498	786
31	2,840	-	750	840	-	2,250	-	743	-	775	501	-

Month	Observed				Change in contents (equivalent, second-feet) †	Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	42,805	4,330	258	1,381	+135	1,516	1.45	1.67
November	79,810	11,700	1,190	2,660	-78.4	2,582	2.47	2.76
December	36,090	1,480	660	1,164	-227	937	.898	1.03
Calendar year 1943	683,327	11,700	258	1,872	-6.91	1,865	1.79	24.25
January	23,240	1,000	450	750	-95.1	655	.627	.72
February	20,100	820	450	693	-137	556	.533	.57
March	42,900	3,900	380	1,384	+31.8	1,416	1.36	1.56
April	149,280	12,400	2,240	4,976	+723	5,699	5.46	6.09
May	99,391	7,100	570	3,206	-220	2,987	2.86	3.30
June	30,560	3,790	327	1,019	-9.47	1,009	.966	1.08
July	19,536	1,040	256	630	-35.5	595	.570	.66
August	14,553	744	118	469	-197	273	.261	.30
September	17,513	1,350	112	584	-24.8	559	.535	.60
Water year 1943-44	575,778	12,400	112	1,573	-12.2	1,561	1.50	20.34

Peak discharge.- Nov. 9 (7:30 p.m.) 18,000 sec.-ft.; Apr. 11 (4 a.m.) 17,600 sec.-ft.
* Winter discharge measurement made on this day.
† Change in contents in Peacham Pond, Mollys Falls Reservoir, East Barre and Wrightsville Detention Reservoirs, and Waterbury Reservoir.
Note.- Stage-discharge relation affected by ice Dec. 11 to Apr. 3.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

East Barre Detention Reservoir at East Barre, Vt.

Location.- Staff gage, lat. 44°10', long. 72°27', at reservoir on Jail Branch at East Barre, Washington County, 3½ miles upstream from mouth of Jail Branch. Datum of gage is 1,127.9 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 32.2 square miles.

Records available.- March and April 1936, September 1938 to September 1944.

Extremes.- Maximum gage height observed during year, 17.8 feet Nov. 10-12; minimum, 0.2 foot Aug. 29 to Sept. 2.
1936, 1938-44: Maximum gage height, 36.0 feet Mar. 22, 1936; minimum, 0.1 foot several days in August and September 1939.

Remarks.- Reservoir is formed by earth-fill dam completed by Corps of Engineers, U. S. Army, in 1935 for flood control. Capacity of reservoir, 506,000,000 cubic feet between gage heights 0.0 foot (bottom of outlet opening) and 37.1 feet (crest of spillway). Dam has no gates; below gage height 37.1 feet outflow from reservoir is dependent on capacity of outlet opening, 4 feet square, near base of dam. Gage read at 8 a.m.

Cooperation.- Gage readings furnished by State of Vermont Board of Public Works.

Gage height at 8 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	14.7	11.8	1.0	1.4	0.9	4.5	12.1	1.4	1.3	1.5	0.2
2	.25	14.6	11.3	1.0	1.3	.9	4.3	12.0	1.3	1.1	1.3	.2
3	1.4	14.2	10.8	1.0	1.3	.9	4.1	11.9	1.1	1.1	1.2	.4
4	2.5	13.8	9.8	1.0	1.3	1.0	4.0	12.0	1.1	1.1	-	.4
5	2.3	13.5	4.3	1.0	1.2	1.0	4.0	11.6	.9	1.0	-	.3
6	2.2	13.2	3.6	1.0	1.2	1.0	3.9	11.2	.9	1.0	-	.3
7	2.0	12.8	3.1	1.0	1.2	1.0	4.1	10.8	.9	1.0	-	-
8	2.0	12.6	2.3	1.0	1.1	1.0	4.2	12.2	1.4	.9	-	-
9	1.8	14.5	2.1	1.0	1.1	1.0	4.5	10.3	-	.9	-	.6
10	1.7	17.8	2.0	1.0	1.1	1.0	9.6	8.1	1.2	.9	-	-
11	1.5	17.8	2.0	1.1	1.0	1.0	16.5	6.2	-	-	-	.5
12	1.5	17.8	1.9	1.1	1.0	1.0	16.6	-	-	1.3	.4	.5
13	1.3	17.6	1.9	1.1	1.0	1.1	16.4	-	.9	1.6	.3	1.3
14	1.3	17.4	1.8	1.1	1.0	1.1	15.5	4.1	.9	1.5	.3	1.1
15	1.5	17.1	1.7	1.1	1.0	1.2	13.7	3.6	.9	1.3	.3	1.0
16	6.2	16.9	1.6	1.0	.9	1.2	12.6	3.2	1.6	1.3	.3	.9
17	10.3	16.5	1.5	1.0	.9	1.4	11.8	3.0	1.6	1.3	.3	1.6
18	15.1	16.2	1.5	1.0	.9	1.6	10.3	2.7	1.6	1.2	-	1.5
19	15.9	15.7	1.5	1.0	.9	1.2	9.2	2.6	1.4	1.1	.7	1.5
20	15.4	15.3	1.45	1.0	.9	2.0	11.4	2.4	1.4	1.1	.7	1.2
21	14.4	15.0	1.45	1.0	.9	2.0	11.1	2.1	-	1.1	.6	1.1
22	13.9	14.6	1.4	1.1	.9	2.3	10.8	1.8	1.7	1.0	.5	.9
23	13.6	14.3	1.3	1.1	.9	2.7	11.2	1.6	2.0	1.0	.5	.7
24	13.2	14.3	1.3	1.1	.9	2.7	11.0	1.5	4.2	1.0	.4	.7
25	12.7	14.2	1.3	1.1	.9	2.5	10.8	1.4	7.3	.9	-	.6
26	12.2	13.9	1.2	1.2	.9	4.2	11.1	1.3	4.2	1.3	-	1.3
27	12.8	13.6	1.2	1.4	.9	4.6	11.3	1.3	-	2.6	.3	1.6
28	15.4	13.3	1.1	1.7	.9	5.1	11.4	1.1	-	2.5	.3	2.1
29	15.4	12.9	1.1	1.8	.9	5.2	11.2	.9	-	2.3	.2	1.8
30	15.1	12.4	1.1	1.7	-	5.0	11.6	.9	1.7	1.9	.2	1.5
31	14.9	-	1.1	1.6	-	4.8	-	.9	-	1.7	.2	-

Gage height and contents, water year October 1943 to September 1944

Date	Gage height (feet)†	Contents (millions of cubic feet)	Change in contents during month	
			Millions of cubic feet	Equivalent, second-feet
Sept.30.....	0.4	0.20	-	-
Oct. 31.....	14.8	47.0	+46.8	+17.5
Nov. 30.....	12.0	22.9	-24.1	-9.30
Dec. 31.....	1.1	.56	-22.34	-8.34
Calendar year 1943	-	-	-1.74	-.06
Jan. 31.....	1.5	.80	+.24	+.09
Feb. 29.....	.9	.45	-.35	-.14
Mar. 31.....	4.5	3.26	+2.81	+1.05
Apr. 30.....	11.9	22.3	+19.04	+7.33
May 31.....	1.7	.93	-21.37	-7.97
June 30.....	1.5	.80	-.13	-.05
July 31.....	1.6	.87	+.07	+.03
Aug. 31.....	.2	.10	-.77	-.29
Sept.30.....	1.4	.74	+.64	+.25
Water year 1943-44	-	-	+.54	+.02

† Gage height at midnight determined from graph based on observer's readings and from graph for station on Jail Branch below reservoir.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Jail Branch at East Barre, Vt.

Location.- Water-stage recorder, lat. 44°10', long. 72°27', at East Barre, Washington County, just downstream from highway bridge, three-quarters of a mile downstream from East Barre Detention Reservoir, and 2¾ miles upstream from Stevens Branch. Datum of gage is 1,071.59 feet above mean sea level (levels by Corps of Engineers, U. S. Army).
Drainage area.- 33.0 square miles.
Records available.- August 1920 to September 1923, November 1933 to September 1944.
Average discharge.- 14 years, 56.7 second-feet (adjusted).
Extremes.- Maximum discharge during year not determined; minimum daily, 1.3 second-feet Aug. 17.
1920-23, 1933-44: Maximum discharge observed, 1,350 second-feet Apr. 10, 1922 (gage height, 8.38 feet, site and datum then in use), from rating curve extended above 900 second-feet; minimum observed, 0.5 second-foot Sept. 11, 1921.
Remarks.- Records good except those below 10 second-feet and those for periods of ice effect or no gage-height record, which are fair. Discharge affected by East Barre Detention Reservoir (see p. 206). Diurnal fluctuation at low flow caused by mill above station. Diversion from reservoir on Orange Brook, a tributary upstream, for use of Barre.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Backwater from debris June 1-3)

Oct. 1 to Apr. '25

0.1	4.4	0.9	63
.2	6.4	1.0	84
.3	8.7	1.1	112
.4	12	1.2	146
.5	16	1.3	184
.6	21	1.4	229
.7	31	1.5	282
.8	45	1.6	340

Apr. 26 to Sept. 30

-0.76	1.3	-0.05	2.9	0.4	14	0.9	67
-.7	1.5	.0	3.6	.5	18	1.0	88
-.5	2.0	.1	5.2	.6	26	1.1	114
-.3	2.4	.2	7.5	.7	36	1.2	146
-.1	2.7	.3	10	.8	50		

Note.- Same as preceding table above 1.2 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	84	78	*17	25	13	48	282	44	14	16	2.2
2	26	82	76	16	*22	13	47	282	23	11	9.9	2.0
3	26	82	*78	15	20	13	63	277	18	9.8	8.6	2.1
4	17	80	113	15	19	13	*67	271	18	8.7	6.9	2.2
5	12	80	63	15	18	12	66	271	15	7.2	6.0	2.1
6	12	80	58	16	18	11	64	256	13	9.5	4.3	4.1
7	11	78	50	16	17	12	67	229	25	8.1	4.4	4.1
8	11	78	41	16	17	12	72	266	19	6.0	3.0	3.6
9	9.2	104	42	16	16	12	84	250	14	5.2	2.6	2.7
10	7.3	98	44	16	16	12	193	206	21	14	2.2	2.7
11	6.8	101	42	16	16	12	290	138	58	20	1.8	2.5
12	7.7	98	40	16	15	13	300	95	23	17	1.7	2.4
13	7.5	98	39	16	15	17	290	82	15	63	1.6	3.2
14	7.1	98	35	16	14	22	280	100	12	23	1.4	12
15	9.6	95	32	16	15	28	*271	78	13	12	1.4	41
16	34	95	30	15	13	30	245	71	15	6.9	1.4	40
17	73	95	29	15	13	37	211	62	42	6.6	1.3	23
18	84	95	28	15	14	50	180	62	23	5.8	3.5	13
19	82	92	27	15	13	50	211	52	20	5.4	3.0	6.2
20	80	92	26	15	13	46	245	46	28	6.2	2.2	5.8
21	80	92	25	16	13	43	250	43	72	13	1.5	6.2
22	78	92	24	17	13	40	234	49	45	11	1.4	41
23	76	90	22	17	13	39	234	47	59	6.2	1.4	17
24	74	90	20	17	13	38	261	35	76	6.2	2.9	9.0
25	71	87	20	16	13	39	288	33	161	6.2	8.5	7.5
26	69	87	20	17	12	45	294	30	84	5.3	3.8	8.3
27	78	84	21	20	13	84	288	29	45	12	3.4	8.2
28	80	82	21	34	13	84	282	24	30	70	2.8	9.7
29	84	82	19	37	*13	72	282	20	21	21	2.5	33
30	84	80	18	33	-	62	282	18	13	16	2.4	17
31	87	-	18	27	-	54	-	20	-	20	2.4	-

Month	Observed				Change in contents (equivalent, second-feet)†	Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	1,389.8	87	5.6	44.8	+17.5	62.3	1.89	2.18
November	2,671	104	78	89.0	-9.30	79.7	2.42	2.70
December	1,199	113	18	38.7	-8.34	30.3	.918	1.06
Calendar year 1943	21,259.9	288	3.3	58.2	-.06	58.2	1.76	23.95
January	564	37	15	18.2	+.09	18.3	.555	.64
February	445	25	12	15.3	-.14	15.2	.461	.50
March	1,028	84	11	33.2	+1.05	34.2	1.04	1.19
April	5,989	300	47	200	+7.33	207	6.27	7.00
May	3,724	282	18	120	-7.97	112	3.39	3.92
June	1,065	161	12	35.5	-.05	35.5	1.08	1.20
July	446.3	70	5.2	14.4	+.03	14.4	.436	.50
August	116.2	16	1.3	3.75	-.29	3.46	.105	.12
September	333.8	41	2.0	11.1	+.25	11.4	.345	.38
Water year 1943-44	18,971.1	300	1.3	51.8	+.02	51.9	1.57	21.39

* Winter discharge measurement made on this day.
† Change in contents in East Barre Detention Reservoir.
Note.- No gage-height record Mar. 11-26, Apr. 11-14, Aug. 14-17, 21-23; discharge computed on basis of weather records, records for East Barre Detention Reservoir, and records for North Branch Winooski River. Stage-discharge relation affected by ice Dec. 5-8, Dec. 11 to Apr. 8.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Wrightsville Detention Reservoir at Wrightsville, Vt.

Location.- Staff gage, lat. 44°18'35", long. 72°34'30", on reservoir on North Branch Winooski River at Wrightsville, Washington County, a third of a mile downstream from Long Meadow Brook and 4¼ miles upstream from mouth. Datum of gage is 612.75 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 68.5 square miles.

Records available.- March and April 1936, September 1938 to September 1944.

Extremes.- Maximum gage height observed during year, 33.0 feet May 1, 2; minimum observed, 0.4 foot Aug. 26 to Sept. 13.
1936, 1938-44: Maximum gage height, 63.7 feet Mar. 22, 1936, from graph based on gage readings; minimum observed, 0.3 foot several days in August and September 1942.

Remarks.- Reservoir is formed by earth-fill dam completed by Corps of Engineers, U. S. Army, in 1935 for flood control. Capacity of reservoir is 873,500,000 cubic feet between gage heights 0.0 foot (bottom of outlet opening) and 72.25 feet (crest of spillway). Dam has no gates; below gage height 72.25 feet, outflow from reservoir is dependent on capacity of outlet opening, 5½ feet square, near base of dam. Gage read at 8 a.m.

Cooperation.- Gage readings furnished by State of Vermont Board of Public Works.

Gage height at 8 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	7.0	2.9	1.5	-	1.5	4.3	33.0	1.0	1.4	2.0	0.4
2	1.4	5.1	2.7	1.5	-	1.4	4.4	33.0	1.0	1.0	1.7	.4
3	2.1	4.6	2.8	1.5	2.1	1.4	5.0	32.7	1.0	1.0	1.5	.4
4	1.9	4.4	2.9	1.5	2.0	1.4	5.8	32.4	1.0	1.0	1.4	.4
5	1.6	4.0	2.7	1.5	1.9	1.4	5.4	32.6	1.0	1.0	1.4	.4
6	1.5	3.6	2.4	1.5	1.8	1.5	4.4	31.0	1.0	1.0	1.3	.4
7	1.3	3.9	2.8	1.5	1.7	1.5	4.8	28.1	1.0	1.0	1.3	.4
8	1.2	3.6	2.6	1.5	1.6	1.5	5.5	28.9	1.0	1.0	1.2	.4
9	1.2	17.0	2.7	1.5	1.6	1.5	-	26.7	1.0	1.0	1.0	.4
10	1.1	29.0	2.8	1.5	1.5	1.5	7.0	23.9	1.0	1.0	.8	.4
11	1.0	27.6	2.7	1.5	1.5	1.5	22.4	22.8	1.5	1.0	.7	.4
12	1.0	23.6	2.4	1.5	1.4	1.5	24.0	19.4	1.6	1.0	.5	.4
13	1.0	20.0	2.3	1.5	1.4	1.6	23.5	16.0	1.2	1.0	.5	.4
14	1.0	16.0	2.3	1.5	1.4	1.8	21.4	12.7	1.0	1.0	.5	.5
15	1.0	11.5	2.2	1.4	1.4	2.0	18.6	9.0	1.0	1.0	.5	1.0
16	2.0	7.7	2.1	1.4	1.4	2.5	15.8	5.9	1.0	1.4	.5	3.6
17	6.6	6.8	2.1	1.4	1.4	3.0	13.0	-	1.8	1.8	.5	2.6
18	16.8	6.0	2.1	1.4	1.4	3.8	11.5	4.8	2.0	1.8	.7	2.0
19	14.3	5.2	2.1	1.4	1.4	3.8	11.5	3.5	2.0	1.8	1.0	1.6
20	10.5	4.3	2.1	1.4	1.4	3.7	15.5	3.0	3.5	1.8	.8	1.4
21	7.4	3.5	2.0	1.4	1.4	3.5	19.4	2.7	6.8	2.2	.8	1.0
22	5.3	3.5	2.0	1.4	1.4	3.3	19.5	2.5	6.8	1.5	.6	2.8
23	4.2	3.4	1.9	1.4	1.4	3.2	19.5	2.4	4.0	1.0	.6	2.4
24	3.6	3.4	1.8	1.4	1.4	3.1	21.8	2.2	3.0	1.0	.5	2.0
25	3.4	3.3	1.7	1.4	1.4	3.0	25.4	2.1	5.5	1.0	.5	1.5
26	3.0	3.3	1.7	1.5	1.4	3.5	28.6	2.0	4.6	1.0	.4	1.4
27	3.0	3.3	1.6	1.5	1.4	5.0	28.8	2.0	4.0	1.5	.4	1.2
28	-	3.5	1.6	-	1.5	6.2	29.0	1.7	3.0	3.0	.4	1.0
29	8.0	3.3	1.5	-	1.5	5.5	29.0	1.5	2.4	3.0	.4	5.0
30	10.9	3.1	1.5	3.0	-	5.0	30.9	1.3	1.8	2.7	.4	4.6
31	9.0	-	1.5	-	-	4.5	-	1.0	-	2.3	.4	-

Gage height and contents, water year October 1943 to September 1944

Date	Gage height (feet)†	Contents (millions of cubic feet)	Change in contents during month	
			Millions of cubic feet	Equivalent, second-feet
Sept.30	1.0	2.25	-	-
Oct. 31	8.3	26.2	+23.95	+8.94
Nov. 30	3.0	7.55	-18.65	-7.20
Dec. 31	1.5	3.5	-4.05	-1.51
Calendar year 1943	-	-	-6.15	-.20
Jan. 31	2.6	6.45	+2.95	+1.10
Feb. 29	1.5	3.5	-2.95	-1.20
Mar. 31	4.4	11.9	+8.4	+3.14
Apr. 30	32.0	199.7	+187.8	+72.5
May 31	1.0	2.25	-197.45	-73.7
June 30	1.6	3.75	+1.5	+.58
July 31	2.1	5.05	+1.3	+.49
Aug. 31	.4	.9	-4.15	-1.55
Sept.30	3.5	9.05	+8.15	+3.14
Water year 1943-44	-	-	+6.8	+.22

† Gage height at midnight determined from graph based on observer's readings and on graph for station on North Branch Winooski River below reservoir.
Time basis: Eastern War time. To convert war time to standard time, subtract 1 hour.

North Branch Winooski River at Wrightsville, Vt.

Location.- Water-stage recorder and concrete control, lat. 44°18'00", long. 72°34'45", at Wrightsville, Washington County, three-quarters of a mile downstream from Wrightsville Detention Reservoir and 3½ miles upstream from mouth. Datum of gage is 550.53 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 69.2 square miles.

Records available.- October 1933 to September 1944.

Average discharge.- 11 years, 128 second-feet (adjusted).

Extremes.- Maximum discharge during year, 677 second-feet May 2 (gage height, 3.46 feet); minimum daily, 3.9 second-feet Aug. 17, Sept. 2.

1933-44: Maximum discharge, 2,170 second-feet Apr. 12, 1934 (gage height, 6.53 feet), from rating curve extended above 920 second-feet; minimum daily, 0.2 second-foot Aug. 13, 1941.

Maximum discharge known, 17,200 second-feet Nov. 3, 1927, by computation of flow over dam three-quarters of a mile above gage.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. High flow controlled since 1935 by Wrightsville Detention Reservoir (see p. 208). Diurnal fluctuation at low stages caused by small mill above station.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.1	3.3	0.6	24	1.5	136
.2	6.7	.7	30	2.0	235
.3	10	.8	38	2.5	350
.4	14	.9	48	3.0	498
.5	18	1.1	75	3.5	695

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a21	250	82	28	62	*30	150	672	24	32	27	4.3
2	a30	164	77	*27	*60	30	180	677	24	24	21	3.9
3	a47	147	*84	26	55	28	220	664	22	21	18	5.3
4	39	140	82	26	50	28	*212	659	20	18	17	9.2
5	35	122	80	26	46	29	188	664	19	22	16	11
6	31	114	66	29	42	31	164	646	19	19	15	8.3
7	28	118	70	31	39	31	168	622	18	19	12	6.7
8	25	145	70	30	36	30	198	618	18	16	12	5.3
9	24	532	73	29	35	29	211	602	20	17	12	4.3
10	22	622	76	29	33	28	434	574	16	15	7.0	7.8
11	21	598	72	29	32	30	570	552	29	16	7.0	8.2
12	20	559	60	30	30	32	590	519	30	17	5.7	7.3
13	20	512	57	28	30	37	574	465	27	17	6.7	9.6
14	20	450	56	29	30	50	540	398	22	16	8.0	14
15	23	366	53	28	30	60	502	325	15	12	5.0	51
16	61	280	50	27	29	65	456	218	15	4.3	5.0	100
17	310	158	49	26	29	80	413	140	44	9.7	3.9	68
18	459	114	48	25	29	120	382	123	47	13	7.9	43
19	410	98	48	26	28	120	401	110	51	11	20	32
20	338	96	48	27	28	110	472	93	104	7.8	21	21
21	260	92	45	28	28	105	522	78	221	28	17	16
22	160	93	42	29	29	95	519	71	188	29	13	44
23	118	90	39	29	30	90	526	65	122	21	a7	56
24	102	94	37	29	29	88	563	58	104	13	6.1	41
25	94	100	35	28	28	92	618	51	174	5.3	5.7	29
26	82	96	34	28	28	115	634	47	154	7.1	9.6	23
27	139	98	36	35	28	180	634	41	124	17	12	20
28	280	102	38	80	30	210	634	36	84	71	12	20
29	323	92	34	85	30	185	638	32	54	64	8.6	122
30	366	83	32	80	-	174	654	27	40	43	7.4	126
31	323	-	30	65	-	158	-	23	-	34	6.7	-

Month	Observed				Change in contents (equivalent, second-feet)†	Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	4,231	459	20	136	+8.94	145	2.10	2.42
November	6,525	622	83	218	-7.20	210	3.03	3.39
December	1,703	84	30	54.9	-1.51	53.4	.772	.89
Calendar year 1943	58,596	745	20	161	-.20	160	2.31	31.44
January	1,072	85	25	34.6	+1.10	35.7	.516	.59
February	1,013	62	28	34.9	-1.20	33.8	.488	.53
March	2,490	210	28	80.3	+3.14	83.5	1.21	1.39
April	12,967	654	150	432	+72.5	505	7.30	8.14
May	9,870	677	23	318	-73.7	245	3.54	4.08
June	1,849	221	15	61.6	+.58	62.2	.899	1.00
July	659.2	71	4.3	21.3	+.49	21.7	.314	.36
August	352.3	27	3.9	11.4	-1.55	9.82	.142	.16
September	917.2	126	3.9	30.6	+3.14	33.7	.487	.54
Water year 1943-44	43,648.7	677	3.9	119	+.22	119	1.72	23.49

* Winter discharge measurement made on this day.

† Change in contents in Wrightsville Detention Reservoir.

a No gage-height record; discharge computed on basis of recorded range in stage and records for Wrightsville Detention Reservoir.

Note.- Stage-discharge relation affected by ice Nov. 30 to Dec. 2, Dec. 5 to Mar. 29.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Dog River at Northfield Falls, Vt.

Location.- Water-stage recorder, lat. 44°10'55", long. 72°38'50", 1 mile downstream from Northfield Falls, Washington County, and 1¼ miles downstream from Cox Branch. Datum of gage is 603.00 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 76.1 square miles.

Records available.- November 1934 to September 1944.

Average discharge.- 10 years, 122 second-feet.

Extremes.- Maximum discharge during year, 3,290 second-feet Apr. 10 (gage height, 6.42 feet), from rating curve extended above 900 second-feet on basis of computation of flow over dam at gage height 8.49 feet and determination of discharge by slope-area method at gage height 11.53 feet; minimum, 7.4 second-feet (regulated) Sept. 8, 10-13.
1934-44: Maximum discharge, 9,750 second-feet Sept. 21, 1938 (gage height, 11.53 feet), by slope-area method; minimum, 4.3 second-feet (regulated) Aug. 31, Sept. 7, 1942.

Remarks.- Records excellent except those for period of ice effect, which are good. Some regulation at low flow caused by power plant above station.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

0.6	7.4	1.2	51	2.7	500
.7	12	1.4	80	3.3	805
.8	17	1.7	141	4.0	1,210
.9	24	2.0	225	5.0	1,940
1.0	32	2.3	330		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	130	112	*50	59	*34	182	655	41	65	47	14
2	21	120	104	45	57	30	266	491	42	50	40	13
3	26	125	*108	51	*52	35	286	424	33	43	37	8.4
4	29	108	108	44	51	32	*238	450	34	36	34	8.8
5	24	100	108	44	47	33	202	366	38	39	24	18
6	24	112	91	46	48	37	194	268	30	37	24	13
7	23	104	104	46	46	37	232	252	30	34	33	14
8	23	167	102	40	44	37	253	482	30	23	23	14
9	15	1,590	108	47	42	34	329	286	30	33	22	13
10	22	488	110	51	41	34	1,790	251	29	225	20	8.2
11	27	304	80	46	39	30	1,040	228	56	165	20	15
12	19	238	95	45	36	35	685	186	41	96	18	12
13	20	203	90	43	38	56	491	164	30	214	12	14
14	20	174	76	43	41	74	382	188	27	98	23	37
15	20	156	72	39	38	69	319	151	27	71	17	57
16	70	146	68	42	38	62	300	136	29	60	15	54
17	378	132	66	43	37	78	315	120	55	59	16	30
18	164	120	64	42	38	114	367	116	40	49	19	31
19	100	116	65	40	33	96	538	100	38	44	16	19
20	84	114	67	39	37	93	701	91	42	40	9.6	19
21	76	108	64	40	39	83	623	82	145	51	20	18
22	69	114	60	37	37	80	501	88	70	48	15	63
23	64	114	55	40	38	85	620	91	58	41	13	36
24	66	123	52	43	37	98	914	77	114	40	18	26
25	64	120	54	38	35	135	1,020	69	234	33	22	30
26	60	118	57	42	31	335	750	63	139	31	17	21
27	296	120	60	46	36	342	685	59	84	34	12	22
28	281	125	64	78	38	235	615	55	62	93	21	23
29	304	110	62	70	35	210	595	49	62	51	15	52
30	206	116	55	58	-	204	675	46	130	53	14	38
31	156	-	49	60	-	179	-	44	-	74	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,775	378	15	89.5	1.18	1.36
November	5,915	1,590	100	197	2.59	2.89
December	2,430	112	49	78.4	1.03	1.19
Calendar year 1943	50,982	1,590	15	140	1.84	24.91
January	1,438	78	37	46.4	.610	.70
February	1,188	59	31	41.0	.539	.58
March	3,036	342	30	97.9	1.29	1.48
April	16,108	1,790	182	537	7.06	7.87
May	6,128	655	44	198	2.60	2.99
June	1,820	234	27	60.7	.798	.89
July	2,030	225	23	65.5	.861	.99
August	650.6	47	9.6	21.0	.276	.32
September	741.4	63	8.2	24.7	.325	.36
Water year 1943-44	44,260.0	1,790	8.2	121	1.59	21.62

Peak discharge.- Nov. 9 (9 a.m.) 3,220 sec.-ft.; Apr. 10 (4 p.m.) 3,290 sec.-ft.; Apr. 25 (6 a.m.) 1,270 sec.ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 11 to Mar. 26.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Mad River near Moretown, Vt.

Location.- Water-stage recorder and concrete control, lat. 44°16'40", long. 72°44'35", at highway bridge, 2.4 miles downstream from Moretown, Washington County, and 3.8 miles upstream from mouth.
Drainage area.- 139 square miles.
Records available.- November 1928 to September 1944.
Average discharge.- 16 years, 244 second-feet.
Extremes.- Maximum discharge during year, 5,700 second-feet Nov. 9 (gage height, 8.85 feet), from rating curve extended above 2,700 second-feet on basis of computations of flow over dam at gage heights 9.98, 16.34, and 19.4 feet; minimum, 2.8 second-feet (regulated) Aug. 16; minimum daily, 12 second-feet (regulated) Sept. 10.
1928-44: Maximum discharge, 18,400 second-feet Sept. 22, 1938 (gage height, 16.34 feet, from floodmarks), from rating curve extended above 2,700 second-feet by method explained above; minimum, 1.4 second-feet (regulated) Oct. 1, 1930.
Maximum discharge known, 23,000 second-feet Nov. 3, 1927 (gage height, 19.4 feet, from floodmarks), by computation of flow over dam.
Remarks.- Records excellent except those below 40 second-feet and above 2,000 second-feet, which are good, and those for periods of ice effect or no gage-height record, which are fair. Regulation at low flow by mill in Moretown.

Rating table, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

3.05	10	3.4	53	3.8	163	5.0	1,000
3.1	14	3.5	74	4.0	249	5.5	1,460
3.2	24	3.6	99	4.2	360	6.0	1,970
3.3	36	3.7	128	4.5	570	7.2	3,390

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a45	325	210	90	105	60	350	1,450	84	157	80	23
2	a40	280	195	85	98	*50	510	1,110	73	111	67	21
3	51	330	200	*80	100	58	452	1,140	65	88	92	17
4	51	275	203	82	*97	56	371	1,590	62	75	65	35
5	47	240	199	85	100	56	*326	1,410	58	66	52	26
6	46	265	180	88	105	56	313	973	49	78	43	27
7	45	235	190	90	93	60	389	709	53	61	44	28
8	42	597	200	75	85	66	389	863	51	52	39	26
9	38	3,270	200	74	75	66	561	543	50	46	34	23
10	37	982	200	90	80	58	3,070	651	63	510	26	12
11	47	594	140	86	75	54	1,510	589	133	284	30	35
12	43	453	145	82	70	60	1,060	423	72	230	27	19
13	36	380	170	76	65	95	760	370	54	608	34	15
14	42	325	130	78	65	140	555	476	47	225	35	118
15	66	280	125	78	70	130	474	347	46	145	27	275
16	279	265	125	75	74	115	458	292	64	114	25	224
17	1,210	231	120	70	74	150	506	246	168	108	21	87
18	446	212	120	72	74	210	556	308	101	81	48	59
19	260	212	120	74	66	180	712	228	87	69	35	48
20	281	221	125	76	64	175	892	195	103	64	23	35
21	270	195	115	78	64	160	847	168	724	166	39	38
22	265	217	110	78	66	150	676	176	228	98	24	301
23	221	199	100	76	70	160	852	186	192	71	22	117
24	208	a220	95	80	66	200	1,370	149	680	61	25	75
25	187	a210	100	76	62	260	1,720	131	758	57	42	60
26	163	a210	105	80	56	600	1,320	121	423	49	37	51
27	952	a240	110	90	58	560	1,160	108	248	124	27	54
28	658	a260	115	150	58	420	1,080	95	167	356	38	64
29	1,010	210	110	125	60	370	1,060	85	262	127	29	223
30	562	220	100	110	-	360	1,330	73	331	149	23	120
31	399	-	95	97	-	320	-	74	-	110	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	8,047	1,210	36	260	1.87	2.15
November	12,153	3,270	195	405	2.91	3.25
December	4,452	210	95	144	1.04	1.19
Calendar year 1943	104,857	3,270	35	287	2.06	28.05
January	2,646	150	70	85.4	.614	.71
February	2,195	105	56	75.7	.545	.59
March	5,455	600	50	176	1.27	1.46
April	25,629	3,070	313	854	6.14	6.86
May	15,277	1,590	73	493	3.55	4.09
June	5,496	758	46	183	1.32	1.47
July	4,540	608	46	146	1.05	1.21
August	1,176	92	21	37.9	.273	.31
September	2,256	301	12	75.2	.541	.60
Water year 1943-44	89,322	3,270	12	244	1.76	23.89

Peak discharge.- Nov. 9 (9:30 a.m.) 5,700 sec.-ft., Apr. 10 (4 p.m.) 5,220 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Dog River at Northfield Falls.
Note.- Stage-discharge relation affected by ice Nov. 29 to Dec. 3, Dec. 6 to Apr. 2.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Waterbury Reservoir near Waterbury, Vt.

Location.- Water-stage recorder, lat. 44°22'55", long. 72°46'15", at dam on Waterbury River, 2 2/3 miles upstream from mouth and 3½ miles north of Waterbury, Washington County. Datum of gage is at mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 109 square miles.

Records available.- September 1938 to September 1944.

Extremes.- Maximum elevation during year 603.13 feet May 1; minimum, 543.12 feet Mar. 24. 1938-44: Maximum elevation, 613.45 feet May 4, 1940; minimum observed, 501.3 feet Oct. 16, 1938.

Remarks.- Reservoir is formed by earth-fill dam completed by Corps of Engineers, U. S. Army, during summer of 1937 for conservation and flood control. Total usable capacity for flood control, 2,812,300,000 cubic feet between elevations 500.0 feet (bottom of lowest outlet) and 617.5 feet (crest of spillway) above mean sea level. Usable capacity for conservation, 1,582,700,000 cubic feet between elevations 500.0 feet and 592.0 feet (sill of taintor gate) above mean sea level.

Elevation at midnight, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	585.82	592.99	589.04	572.21	564.46	550.64	558.56	603.04	590.97	590.30	588.04	574.18
2	586.01	592.05	589.16	572.16	564.93	549.26	560.37	602.10	591.10	590.26	587.60	574.24
3	586.04	591.22	589.56	571.28	565.36	548.73	561.84	601.43	591.24	589.87	587.00	574.34
4	585.32	590.23	589.99	570.08	565.77	549.13	563.03	601.89	591.21	589.93	586.83	574.19
5	585.01	589.66	590.13	569.62	566.17	548.96	564.07	602.07	590.66	589.48	586.89	572.80
6	584.57	590.32	589.77	569.01	566.36	547.61	565.01	601.39	590.14	589.31	586.95	573.06
7	584.13	590.82	589.20	568.57	565.73	546.82	566.11	600.44	589.64	589.42	586.44	572.25
8	584.27	592.11	589.03	568.87	564.82	545.97	567.18	600.26	589.09	589.50	585.92	571.82
9	584.39	598.51	589.43	568.59	564.67	545.19	568.64	598.67	588.67	589.59	585.41	572.23
10	583.97	599.94	589.84	567.72	564.05	544.58	574.59	597.52	588.89	589.70	584.90	572.08
11	583.57	600.75	590.13	566.90	563.59	544.95	577.67	595.93	589.13	589.80	584.37	571.37
12	583.18	600.37	589.37	566.08	563.91	545.12	579.89	593.93	589.28	589.93	584.47	570.62
13	582.77	599.54	588.73	565.24	563.43	544.87	581.36	591.74	589.08	590.25	584.39	569.88
14	582.37	599.12	587.40	564.77	562.49	545.89	582.37	590.49	588.54	590.37	583.43	569.83
15	582.69	598.92	586.01	565.07	561.57	546.70	583.23	591.18	588.01	590.45	582.63	571.43
16	583.37	597.95	585.12	565.00	560.67	546.64	584.16	591.72	587.75	590.53	581.97	572.49
17	587.50	596.89	583.98	564.09	559.76	546.65	585.15	591.68	588.49	589.93	581.50	572.97
18	588.51	595.84	583.42	563.18	559.32	547.90	586.15	591.77	588.84	589.32	581.50	573.04
19	589.04	594.76	583.13	562.50	559.26	547.95	587.45	591.76	589.56	588.74	581.67	572.45
20	589.79	593.71	581.64	561.74	558.76	546.99	589.12	592.09	590.30	588.27	581.61	571.80
21	590.43	592.61	580.08	561.27	557.75	545.98	590.58	592.07	591.62	588.68	580.94	571.42
22	591.08	591.63	579.04	561.58	556.77	544.87	590.71	591.99	591.80	588.83	580.20	572.85
23	591.56	590.53	577.39	561.67	555.85	543.86	590.68	591.71	591.23	588.92	579.44	573.34
24	591.99	589.43	575.67	560.99	554.88	543.82	592.20	591.96	590.49	588.36	578.50	573.48
25	591.74	588.30	575.25	560.25	554.37	545.21	595.52	591.97	589.38	587.77	577.99	572.76
26	591.59	587.52	575.61	559.54	554.30	548.79	597.54	591.74	589.95	587.20	578.12	572.16
27	592.53	587.52	574.40	560.37	554.24	551.50	599.26	591.94	590.27	587.65	578.05	571.60
28	592.84	587.76	573.73	562.33	553.09	553.23	600.86	591.64	590.50	588.41	577.04	571.46
29	594.73	588.22	573.09	563.43	551.91	554.68	601.71	591.80	590.51	588.66	576.24	573.14
30	594.79	588.63	572.36	564.13	-	556.05	602.65	591.79	590.18	588.84	575.46	573.73
31	593.97	-	571.90	564.13	-	557.26	-	591.28	-	588.45	574.73	-

Note.- Elevations for periods Dec. 25-28, Jan. 5 to Mar. 1, determined from graph based on twice-daily tape-gage readings, time of valve operation, and records for station on Waterbury River downstream from reservoir.

Elevation and contents, water year October 1943 to September 1944

Date	Elevation (feet)	Contents (millions of cubic feet)	Change in contents during month	
			Millions of cubic feet	Equivalent, second-feet
Sept.30	585.67	1,351.8	-	-
Oct. 31	593.97	1,659.5	+307.7	+115
Nov. 30	588.63	1,456.4	-203.1	-78.4
Dec. 31	571.90	941.8	-514.6	-192
Calendar year 1943	-	-	-207.3	-6.57
Jan. 31	564.13	751.5	-190.3	-71.1
Feb. 29	551.91	497.6	-253.9	-101
Mar. 31	557.26	602.2	+104.6	+39.1
Apr. 30	602.65	2,036.6	+1,434.4	+553
May 31	591.28	1,554.6	-482.0	-180
June 30	590.18	1,511.9	-42.7	-16.5
July 31	588.45	1,450.1	-61.8	-23.1
Aug. 31	574.73	1,016.5	-433.6	-162
Sept.30	573.73	990.1	-26.4	-10.2
Water year 1943-44	-	-	-361.7	-11.4

† Elevation at midnight.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Waterbury River near Waterbury, Vt.

Location.- Water-stage recorder and concrete control, lat. 44°22'10", long. 72°46'10", 1 mile downstream from Waterbury Reservoir, 1 2/3 miles upstream from mouth and 2½ miles north of Waterbury, Washington County. Datum of gage is 428.00 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 111 square miles.

Records available.- December 1935 to September 1944.

Extremes.- Maximum discharge during year, 1,430 second-feet (regulated) May 1, 8 (gage height, 9.36 feet); minimum daily, 0.6 second-foot (regulated) July 16.
1935-44: Maximum discharge, 6,520 second-feet Mar. 18, 1936 (gage height, 19.38 feet); minimum daily, 0.6 second-foot (regulated) several times during summers of 1938, 1939, 1941, and 1944.

Remarks.- Records excellent except those below 25 second-feet, which are good. Flow completely regulated by Waterbury Reservoir (see preceding page).

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

4.73	0.6	5.2	10	6.5	150
4.8	1.2	5.3	14	6.8	216
4.85	1.8	5.4	19	7.1	301
4.9	2.6	5.6	32	7.5	450
4.95	3.4	5.8	49	8.0	665
5.0	4.4	6.0	71	8.5	935
5.1	7.0	6.2	98	9.4	1,450

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	690	3.8	2.3	52	323	6.5	1,070	223	1.3	223	214
2	1.6	690	107	93	2.8	311	8.2	1,420	1.7	53	219	1.0
3	48	690	4.3	319	3.0	194	7.6	1,420	1.4	227	277	.8
4	343	690	3.8	428	2.3	2.0	7.0	1,420	57	1.1	108	63
5	168	466	114	214	2.5	85	6.5	1,420	266	240	1.0	474
6	216	5.0	270	252	46	318	6.2	1,420	271	133	.8	115
7	223	3.8	392	211	251	222	7.7	1,420	266	1.4	219	313
8	2.3	10	222	2.6	307	223	7.3	1,420	269	.9	219	217
9	1.1	46	3.8	150	102	226	10	1,420	226	.8	219	1.2
10	195	12	3.6	315	238	185	39	1,420	2.5	1.0	219	102
11	195	8.8	3.4	315	205	1.7	19	1,420	1.8	.9	222	262
12	195	436	449	307	2.1	38	18	1,410	1.2	.8	1.4	256
13	195	705	385	310	195	186	12	1,400	107	1.3	42	262
14	195	486	665	201	300	3.4	9.7	979	275	.8	379	264
15	3.4	300	660	2.0	321	2.7	8.5	6.2	275	.7	310	214
16	3.2	705	452	98	300	138	8.9	5.0	224	.6	271	2.1
17	13	700	539	299	285	186	9.7	229	2.6	275	272	1.2
18	3.5	695	330	302	204	3.9	11	232	1.7	270	224	50
19	2.6	695	206	251	90	142	15	169	2.8	275	1.1	260
20	5.0	690	647	250	197	321	16	3.8	3.3	290	47	263
21	3.1	695	647	207	288	313	14	132	6.5	44	271	223
22	2.9	695	454	2.1	290	316	410	173	189	1.1	282	3.4
23	2.4	690	638	43	286	313	680	239	510	.8	294	1.4
24	2.4	685	634	254	288	182	374	3.1	653	268	381	50
25	252	685	249	250	195	5.6	29	85	773	277	226	311
26	239	524	2.7	250	95	11	18	186	3.2	277	1.2	260
27	7.0	209	457	201	88	8.5	14	2.4	2.1	16	50	256
28	226	145	320	5.7	325	6.2	12	198	1.6	2.3	369	217
29	221	4.7	308	3.8	322	6.0	466	2.0	51	1.2	288	2.4
30	409	4.0	315	3.1	-	6.0	715	60	243	1.3	286	1.2
31	690	-	223	100	-	6.0	-	273	-	219	262	-

Month	Observed				Change in contents (equivalent, second-feet)†	Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October	4,065.7	690	1.1	131	+115	246	2.22	2.56
November	13,060.3	705	3.8	435	-78.4	357	3.22	3.59
December	9,708.4	665	2.7	313	-192	121	1.09	1.26
Calendar year 1943	104,094.9	1,450	1.1	285	-6.57	279	2.51	34.08
January	5,641.6	428	2.0	182	-71.1	111	1.00	1.15
February	5,282.7	325	2.1	182	-101	80.8	.728	.79
March	4,285.0	323	1.7	138	+39.1	177	1.59	1.84
April	2,965.8	715	6.2	98.9	+553	652	5.87	6.56
May	21,057.5	1,420	2.0	679	-180	499	4.50	5.19
June	4,910.4	773	1.2	164	-16.5	147	1.32	1.48
July	2,882.3	290	.6	93.0	-23.1	69.9	.630	.73
August	6,184.5	381	.8	200	-162	37.6	.339	.39
September	4,660.7	474	.8	155	-10.2	145	1.31	1.46
Water year 1943-44	84,704.9	1,420	.6	231	-11.4	220	1.98	27.00

† Change in contents in Waterbury Reservoir.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Lamoille River at Johnson, Vt.

Location.- Water-stage recorder, lat. 44°37'20", long. 72°40'50", at falls 0.9 mile upstream from bridge in Johnson, Lamoille County, and 1 1/8 miles upstream from Gihon River.

Drainage area.- 310 square miles.

Records available.- July 1910 to December 1913, September 1928 to September 1944.

Average discharge.- 16 years (1928-44), 514 second-feet.

Extremes.- Maximum discharge during year not determined; minimum, 16 second-feet (regulated) Aug. 13; minimum daily, 57 second-feet (regulated) Aug. 13.
1910-13, 1928-44: Maximum discharge, 13,000 second-feet Mar. 18, 1936 (gage height, 16.48 feet), by computation of flow over dam; minimum, 11 second-feet (regulated) Sept. 2, 1935; minimum daily, 20 second-feet (regulated) Aug. 18, 1940.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by power plant above station.

Rating tables, water year 1943-44, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 11						Apr. 12 to Sept. 30					
1.8	74	2.2	200	7.0	2,570	1.7	47	2.2	190	5.0	1,480
1.9	100	3.0	520	8.0	3,220	1.8	70	2.5	312	7.5	2,860
2.0	131	5.0	1,510	9.0	4,010	1.9	96	3.0	529	9.2	4,160
						2.0	125	4.0	980		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	500	424	190	270	190	640	2,640	150	174	182	141
2	182	431	407	160	250	180	800	2,220	149	69	161	116
3	132	445	428	190	240	*180	960	1,830	175	110	158	108
4	262	472	*415	*180	220	190	860	2,030	170	105	152	132
5	258	419	430	150	*210	150	780	2,040	190	136	124	191
6	311	386	400	*190	*190	210	715	1,560	148	197	80	248
7	307	387	410	220	240	180	785	1,190	113	122	123	174
8	149	613	400	220	210	160	876	2,200	101	113	112	168
9	169	4,000	410	180	190	170	755	1,540	166	98	101	159
10	98	2,700	420	220	180	170	2,700	1,270	191	195	116	169
11	173	1,160	320	210	170	150	3,600	1,440	167	140	105	148
12	171	767	230	200	170	80	2,330	985	171	127	106	123
13	205	578	290	200	160	200	1,780	756	153	188	57	135
14	209	536	300	200	210	300	*1,240	790	159	151	107	197
15	218	551	300	200	190	290	990	695	151	120	120	524
16	255	473	280	180	170	270	955	521	188	109	120	619
17	1,700	423	290	190	190	390	1,160	526	348	128	112	374
18	2,100	399	240	190	180	460	1,180	555	224	174	211	257
19	785	467	210	180	200	420	1,620	533	389	166	157	152
20	521	200	270	160	150	390	2,430	392	720	121	110	176
21	499	365	270	170	220	360	2,310	326	1,070	232	155	171
22	439	447	260	180	190	350	1,550	349	906	151	122	479
23	366	497	220	160	190	350	1,890	325	745	99	99	394
24	318	577	260	200	180	420	2,480	296	566	138	141	115
25	365	471	250	180	170	600	4,100	253	423	137	134	226
26	330	472	170	170	180	900	2,740	262	640	131	132	274
27	326	427	190	210	140	1,100	2,160	225	458	222	128	176
28	800	499	260	380	200	920	2,220	170	306	463	125	186
29	1,200	487	250	370	190	820	2,100	203	203	310	135	784
30	1,100	396	240	320	-	720	2,550	167	206	177	133	797
31	650	-	210	290	-	650	-	169	-	202	122	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	14,756	2,100	98	476	1.54	1.77
November	20,545	4,000	200	685	2.21	2.46
December	9,454	430	170	305	.984	1.13
Calendar year 1943	232,806	4,800	92	638	2.06	27.92
January	6,440	380	150	208	.671	.77
February	5,650	270	140	195	.629	.68
March	11,920	1,100	80	385	1.24	1.43
April	51,256	4,100	640	1,709	5.51	6.15
May	28,458	2,640	167	918	2.96	3.41
June	9,746	1,070	101	325	1.05	1.17
July	5,005	463	69	161	.519	.60
August	3,940	211	57	127	.410	.47
September	7,913	797	108	264	.852	.95
Water year 1943-44	175,083	4,100	57	478	1.54	20.99

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 17, 18, Oct. 28 to Nov. 1, Nov. 9, 10, Dec. 20 to Jan. 6, Apr. 10, 11; discharge computed on basis of 2 discharge measurements, engineers' notes, weather records, records for station at East Georgia, and records for stations on nearby streams. Stage-discharge relation affected by ice Dec. 6 to Apr. 5.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Lamoille River at East Georgia, Vt.

Location.- Water-stage recorder, lat. 44°40'45", long. 73°04'20", at East Georgia, Franklin County, 0.5 mile upstream from railroad bridge and 1 mile downstream from Beaver Meadow Brook.

Drainage area.- 686 square miles.

Records available.- October 1937 to September 1944. August 1929 to November 1937 at site near Milton, 3½ miles downstream, published as Lamoille River near Milton.

Average discharge.- 15 years, 1,198 second-feet, adjusted to present drainage area.

Extremes.- Maximum discharge during year, 11,300 second-feet Nov. 10; maximum gage height, 12.66 feet Mar. 26 (ice jam); minimum discharge, 87 second-feet (regulated) Aug. 8; minimum daily, 160 second-feet (regulated) Aug. 11.

1929-44: Maximum discharge, 23,200 second-feet Mar. 19, 1936 (gage height, 12.52 feet, site and datum then in use), by computation of flow over dam; minimum, 49 second-feet (regulated) July 30, 1933; minimum daily, 91 second-feet (regulated) July 30, 1933.

Remarks.- Records good except those for period of ice effect, which are fair. Flow regulated at low flow by power plants above station.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)

2.2	140	3.3	545	5.5	2,620
2.4	190	3.6	725	6.0	3,350
2.6	250	4.0	1,020	7.0	5,050
2.8	319	4.5	1,470	8.0	7,150
3.0	400	5.0	2,000	9.0	9,700

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	370	1,360	1,020	440	630	430	1,450	5,310	372	455	394	250
2	348	1,160	940	420	590	410	1,800	4,760	368	359	368	222
3	369	1,410	1,000	370	550	390	2,150	3,890	352	292	306	243
4	402	1,410	1,000	350	520	*370	2,050	4,370	388	289	329	222
5	458	1,190	1,000	380	500	*390	1,800	4,690	422	299	280	276
6	442	1,060	830	420	480	350	*1,660	3,880	395	382	200	526
7	492	1,120	900	400	*470	390	1,640	2,830	450	406	275	544
8	491	1,160	880	400	*520	380	1,700	3,810	372	259	187	383
9	286	7,170	900	390	440	400	1,710	3,780	330	251	227	352
10	285	9,140	960	390	400	380	5,370	2,660	347	309	215	444
11	364	3,480	900	470	380	350	7,770	3,140	537	330	160	341
12	325	2,190	740	440	400	300	5,410	2,250	476	310	192	320
13	329	1,690	800	410	370	500	4,400	1,700	360	430	196	230
14	336	1,470	730	390	340	640	3,200	1,790	340	573	218	261
15	392	1,310	670	410	440	650	2,420	1,540	322	330	186	921
16	548	1,220	620	370	390	600	2,300	1,310	444	254	206	1,630
17	3,310	1,080	580	*370	350	800	2,990	1,100	1,150	277	271	1,010
18	4,580	988	550	400	420	1,030	2,790	1,060	896	256	510	693
19	1,970	972	540	370	380	970	3,050	1,070	700	282	668	520
20	1,490	1,070	520	350	340	900	4,280	910	1,530	280	348	380
21	1,550	815	560	340	400	860	4,640	766	2,340	354	268	365
22	1,300	996	520	360	430	830	3,460	725	2,360	481	260	936
23	1,110	939	490	360	420	800	3,570	631	2,050	328	230	1,070
24	980	950	470	390	400	880	4,560	667	1,460	199	211	628
25	940	1,340	450	420	400	1,150	6,830	613	1,270	312	282	404
26	902	1,170	450	360	380	1,800	7,060	579	1,160	328	248	503
27	1,010	1,200	430	400	380	2,600	4,760	536	1,080	451	266	567
28	1,800	1,500	540	870	370	2,200	4,400	416	804	1,100	224	562
29	2,710	1,250	520	860	440	1,900	4,150	477	639	1,010	232	1,280
30	2,910	960	470	780	-	1,700	4,760	368	426	578	242	1,590
31	1,810	-	440	690	-	1,550	-	428	-	466	251	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	34,609	4,580	285	1,116	1.63	1.88
November	52,770	9,140	815	1,759	2.56	2.86
December	21,420	1,020	430	691	1.01	1.16
Calendar year 1943	512,268	10,800	285	1,403	2.05	27.77
January	13,770	870	340	444	.647	.75
February	12,530	630	340	432	.630	.68
March	26,900	2,600	300	868	1.27	1.46
April	108,130	7,770	1,450	3,604	5.25	5.86
May	62,056	5,310	368	2,002	2.92	3.36
June	24,140	2,360	322	805	1.17	1.31
July	12,230	1,100	199	395	.576	.66
August	8,450	668	160	273	.398	.46
September	17,673	1,630	222	589	.859	.96
Water year 1943-44	394,678	9,140	160	1,078	1.57	21.40

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 27 to Apr. 5.

Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Missisquoi River near North Troy, Vt.

Location.- Water-stage recorder, lat. 44°58'20", long. 72°23'15", just upstream from Big Falls, 1½ miles downstream from Jay Branch and 2¾ miles upstream from North Troy, Troy County.
Drainage area.- 131 square miles.
Records available.- August 1931 to September 1944.
Average discharge.- 13 years, 262 second-feet.
Extremes.- Maximum discharge during year, 3,540 second-feet Nov. 9 (gage height, 8.52 feet); minimum, 18 second-feet (regulated) Aug. 16 (gage height, 1.02 feet); minimum daily, 19 second-feet (regulated) Aug. 16.
1931-44: Maximum discharge, 7,980 second-feet May 3, 1940 (gage height, 12.87 feet), from rating curve extended above 3,600 second-feet by logarithmic plotting; verified by computation of flow over dam at gage height 11.70 feet; minimum, 10 second-feet (regulated) Aug. 22, 1934 (gage height, 0.81 foot); minimum daily, 12 second-feet (regulated) Sept. 24, 1941.
Remarks.- Records excellent except those for periods of ice effect, which are fair. Some regulation from small power plant above station.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 24

1.4	36	2.3	164	4.0	718
1.6	53	2.6	234	5.0	1,170
1.8	75	3.0	346	6.0	1,700
2.0	105	3.5	518	7.6	2,780

Apr. 25 to Sept. 30

1.0	17	1.3	30	1.8	77
1.1	21	1.4	38	2.0	107
1.2	26	1.6	55	2.3	164

Note.- Same as preceding table above 2.3 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	242	219	80	115	74	290	1,510	58	59	70	44
2	68	211	193	77	110	69	380	1,150	57	53	48	51
3	102	358	202	72	105	67	430	1,060	93	49	48	64
4	78	290	200	74	98	66	380	1,500	95	38	38	56
5	64	229	200	70	95	60	343	1,400	71	35	42	38
6	54	282	*150	76	93	*65	302	967	61	51	34	76
7	52	317	170	*85	91	66	313	647	83	37	28	58
8	50	339	170	84	87	70	*340	1,050	81	41	33	67
9	52	2,750	190	82	*80	66	390	573	66	35	29	101
10	55	1,140	200	75	78	63	1,400	564	53	34	20	80
11	41	464	130	77	78	64	1,510	557	87	38	25	58
12	42	328	160	80	76	70	948	349	75	56	22	54
13	46	263	170	74	74	90	635	274	60	160	22	46
14	46	226	150	78	76	125	420	290	54	102	24	70
15	60	193	135	77	73	135	346	234	51	64	21	1,060
16	158	184	125	72	71	130	387	222	46	39	19	787
17	411	147	120	66	70	120	442	186	130	45	80	237
18	376	158	115	66	70	200	464	214	115	41	275	133
19	178	158	115	66	67	170	704	160	153	26	128	101
20	243	186	115	68	67	150	1,180	136	335	39	63	69
21	224	173	105	75	69	140	1,000	121	738	92	44	79
22	204	174	95	71	72	135	724	121	352	87	47	338
23	173	104	90	74	75	130	1,020	118	323	47	36	190
24	168	172	80	76	75	170	1,330	107	187	44	33	134
25	164	226	75	74	71	250	1,950	94	160	41	48	104
26	137	219	77	76	68	450	1,260	82	220	108	46	118
27	206	246	80	110	70	500	1,020	71	150	453	43	164
28	407	337	105	170	77	410	1,140	70	107	421	33	378
29	1,050	281	100	150	78	360	1,120	67	81	158	27	1,270
30	780	219	95	130	-	320	1,500	59	61	106	38	421
31	338	-	85	120	-	290	-	49	-	95	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	6,073	1,050	41	196	1.50	1.72
November	10,616	2,750	104	354	2.70	3.01
December	4,216	219	75	136	1.04	1.20
Calendar year 1943	112,752	4,170	41	309	2.36	32.01
January	2,625	170	66	84.7	.647	.75
February	2,329	115	67	80.3	.613	.66
March	5,075	500	60	164	1.25	1.44
April	23,668	1,950	290	789	6.02	6.72
May	14,002	1,510	49	452	3.45	3.98
June	4,203	738	46	140	1.07	1.19
July	2,694	453	26	86.9	.663	.76
August	1,514	275	19	48.8	.373	.43
September	6,446	1,270	38	215	1.64	1.83
Water year 1943-44	83,461	2,750	19	228	1.74	23.69

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 6 to Apr. 4, Apr. 9, 10 (no gage-height record Dec. 15 to Jan. 6; discharge computed on basis of 1 discharge measurement, weather records, and records for stations on nearby streams).
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Missisquoi River near Richford, Vt.

Location.- Water-stage recorder, lat. 44°57'30", long. 72°41'55", 1 2/3 miles upstream from Trout River, 3 miles south of Richford, Franklin County, and 3¾ miles downstream from North Branch.
Drainage area.- 479 square miles.
Records available.- May 1909 to November 1910, July 1911 to September 1923, October 1928 to September 1944.
Average discharge.- 24 years (1911-19, 1928-44), 922 second-feet.
Extremes.- Maximum discharge during year, 7,780 second-feet Nov. 9; maximum gage height, 11.50 feet Mar. 26 (ice jam); minimum discharge, 60 second-feet Aug. 15, 16 (gage height, 2.51 feet).

1909-10, 1911-23, 1928-44: Maximum discharge, 17,200 second-feet May 4, 1940 (gage height, 15.15 feet), from rating curve extended above 9,300 second-feet on basis of computation of flow over dam at gage height 14.70 feet, slope-area determination at gage height 12.90 feet, and study of discharge per foot of width at measuring section; maximum gage height, 17.64 feet Apr. 1, 1918 (ice jam); minimum discharge, 8 second-feet July 14, 1911.

Maximum discharge known, 45,000 second-feet during flood of November 1927 (gage height, 23.1 feet, from floodmarks), from rating curve extended above 9,300 second-feet by method explained above.
Remarks.- Records excellent except those for periods of ice effect, which are fair. Slight diurnal fluctuation at low flow.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

2.5	58	3.3	261	6.0	2,240
2.6	75	3.6	385	7.5	3,810
2.7	94	3.9	535	9.4	6,120
2.8	116	4.2	730		
3.0	165	5.0	1,360		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	944	920	310	440	290	1,100	3,930	155	185	258	86
2	130	859	820	290	420	290	1,400	3,500	155	165	207	90
3	180	1,320	800	280	390	280	1,600	2,840	200	147	174	116
4	213	1,370	800	290	380	260	1,500	3,150	223	134	147	121
5	185	1,040	798	*260	370	*250	1,350	3,180	213	123	125	116
6	160	888	660	290	380	240	1,200	2,640	185	121	121	107
7	139	1,060	680	300	380	260	*1,220	1,880	182	116	107	107
8	125	1,100	680	310	*360	280	*1,300	2,420	185	116	98	142
9	121	5,630	720	300	320	270	1,410	2,190	188	109	92	171
10	132	5,730	760	310	300	260	3,600	1,810	168	103	88	185
11	116	3,300	580	300	280	240	4,660	2,050	160	96	83	149
12	118	1,750	640	300	280	260	4,470	1,410	155	238	75	121
13	107	1,290	620	290	280	310	3,230	1,040	174	602	68	114
14	109	1,040	560	290	270	420	2,200	904	147	458	66	145
15	116	865	520	290	280	500	1,640	798	128	272	61	1,200
16	180	745	480	280	270	460	1,720	702	130	220	85	2,200
17	1,240	608	460	260	270	460	2,170	602	144	188	105	1,110
18	1,180	571	440	260	280	750	2,050	577	207	174	327	489
19	648	577	440	250	260	650	2,190	524	230	160	371	327
20	621	688	440	250	270	600	3,270	435	843	139	208	254
21	647	647	400	260	260	550	3,660	385	1,380	155	137	216
22	595	621	370	260	280	520	3,250	354	1,400	191	107	478
23	535	490	330	280	290	500	3,320	344	1,180	185	101	594
24	455	680	310	270	290	640	3,920	315	905	142	98	372
25	430	900	290	280	290	800	5,720	280	571	160	92	280
26	385	920	290	290	270	1,400	6,030	258	491	195	90	291
27	425	960	310	400	280	1,900	4,480	233	460	429	94	394
28	892	1,350	400	600	280	1,700	3,780	213	340	984	88	844
29	2,310	1,200	390	640	300	1,400	3,440	194	265	635	83	2,450
30	2,760	1,000	350	560	-	1,200	3,710	185	216	349	79	2,230
31	1,560	-	330	480	-	1,100	-	162	-	287	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	16,939	2,760	107	546	1.14	1.32
November	40,143	5,730	490	1,338	2.79	3.12
December	16,588	920	290	535	1.12	1.29
Calendar year 1943	387,697	7,500	107	1,062	2.22	30.10
January	10,030	640	250	324	.676	.78
February	9,020	440	260	311	.649	.70
March	19,040	1,900	240	614	1.28	1.48
April	84,590	6,030	1,100	2,820	5.89	6.57
May	39,505	3,930	162	1,274	2.66	3.07
June	11,380	1,400	128	379	.791	.88
July	7,578	984	96	244	.509	.59
August	3,914	371	61	126	.263	.30
September	15,499	2,450	86	517	1.08	1.20
Water year 1943-44	274,226	6,030	61	749	1.56	21.30

Peak discharge.- Nov. 9 (11:30 a.m.) 7,780 sec.-ft.; Apr. 26 (12:30 a.m.) 6,650 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 25 to Dec. 4, Dec. 6 to Apr. 6.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Lake Memphremagog at Newport, Vt.

Location.- Chain gage, lat. 44°56'10", long. 72°12'15", on concrete highway bridge in Newport, Orleans County. Datum of gage is 673.00 feet above mean sea level, datum of 1929.

Records available.- May 1931 to September 1944.

Extremes.- Maximum gage height observed during year, 10.50 feet Nov. 23; minimum observed, 7.82 feet Sept. 12.
1931-44: Maximum gage height observed, 12.92 feet Apr. 20, 1933; minimum observed, 6.69 feet Nov. 4, 1934.

Remarks.- Gage read twice daily.

Gage height, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.16	9.12	10.20	10.10	10.05	10.12	8.40	10.24	9.90	9.93	9.34	8.03
2	9.24	9.13	10.03	10.10	10.06	10.10	8.45	10.27	9.87	9.94	9.30	8.04
3	9.31	9.23	10.08	10.10	10.05	10.10	8.54	10.32	9.94	9.91	9.28	8.10
4	9.26	9.25	10.06	10.10	10.05	10.10	8.56	10.36	9.91	9.87	9.25	8.07
5	9.18	9.25	10.13	10.10	10.05	10.10	8.59	10.33	9.79	9.80	9.23	8.06
6	9.08	9.29	10.04	10.10	10.04	10.07	8.61	10.35	9.77	9.74	9.27	8.04
7	9.06	9.35	10.12	10.10	10.04	10.10	8.64	10.26	9.78	9.68	9.18	8.02
8	8.97	9.39	10.09	10.10	10.04	10.10	8.66	10.44	9.74	9.64	9.10	8.00
9	8.95	9.70	10.12	10.09	10.03	10.10	8.66	10.40	9.71	9.64	9.04	7.97
10	8.91	9.89	10.11	10.10	10.03	10.10	8.81	10.43	9.64	9.66	8.99	7.97
11	8.86	10.09	10.15	10.09	10.04	10.10	8.95	10.34	9.66	9.58	8.88	7.95
12	8.79	10.15	10.12	10.10	10.04	10.08	9.32	10.25	9.66	9.58	8.85	7.88
13	8.73	10.18	10.16	10.09	10.04	10.00	9.44	10.18	9.71	9.68	8.90	7.90
14	8.63	10.28	10.16	10.08	10.03	10.00	9.48	10.14	9.53	9.70	8.82	7.95
15	8.66	10.26	10.16	10.08	10.04	10.01	9.43	10.05	9.46	9.57	8.81	8.18
16	8.77	10.27	10.14	10.08	10.07	10.01	9.44	10.00	9.44	9.53	8.76	8.29
17	8.75	10.22	10.15	10.08	10.08	9.96	9.47	9.97	9.40	9.58	8.72	8.31
18	8.73	10.24	10.14	10.08	10.08	9.96	9.46	10.05	9.54	9.48	8.78	8.28
19	8.73	10.20	10.14	10.08	10.08	9.95	9.46	10.04	9.39	9.38	8.82	8.29
20	8.80	10.22	10.14	10.08	10.08	9.94	9.56	10.08	9.52	9.29	8.60	8.29
21	8.80	10.26	10.14	10.08	10.10	9.93	9.68	10.04	9.64	9.34	8.73	8.28
22	8.80	10.42	10.13	10.08	10.11	9.81	9.71	10.06	9.66	9.27	8.51	8.40
23	8.78	10.50	10.14	10.07	10.12	7.97	9.74	10.03	9.72	9.31	8.81	8.37
24	8.84	10.40	10.14	10.08	10.11	7.97	9.80	10.02	9.75	9.23	8.42	8.34
25	8.79	10.39	10.14	10.06	10.11	7.98	10.05	10.06	9.85	9.25	8.33	8.30
26	8.76	10.40	10.12	10.08	10.11	8.05	10.16	10.00	9.88	9.22	8.24	8.32
27	8.78	10.35	10.12	10.06	10.11	8.20	10.26	10.03	9.89	9.23	8.22	8.32
28	8.82	10.40	10.10	10.04	10.11	8.26	10.27	10.02	9.91	9.29	8.19	8.39
29	8.89	10.30	10.10	10.04	10.12	8.31	10.21	10.03	9.88	9.30	8.16	8.62
30	9.09	10.23	10.10	10.04	-	8.36	10.25	9.94	9.94	9.32	8.17	8.59
31	9.12	-	10.10	10.04	-	8.37	-	9.90	-	9.34	8.13	-

Note.- Gage heights for Dec. 12 to Mar. 22 were taken to top of ice.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Clyde River at Newport, Vt.

Location.- Water-stage recorder, lat. 44°56'20", long. 72°11'25", in Newport, Orleans County, just downstream from unnamed tributary entering from north and 1 mile upstream from mouth. Datum of gage is 682.36 feet above mean sea level, datum of 1929.

Drainage area.- 142 square miles.

Records available.- September 1938 to September 1944. May 1909 to September 1924 and November 1928 to May 1936 at site 0.65 mile upstream.

Average discharge.- 22 years (1909-19, 1929-35, 1938-44), 244 second-feet.

Extremes.- Maximum discharge during year, 1,350 second-feet May 8 (gage height, 6.38 feet); minimum daily, 29 second-feet (regulated) Aug. 20, 27.
1909-24, 1928-36, 1938-44: Maximum discharge, 3,900 second-feet Mar. 20, 1936 (gage height, 5.76 feet, site and datum then in use), by computation of flow over dam; minimum daily, 3.0 second-feet (regulated) Oct. 27, 1930; practically no flow at times because of regulation.

Remarks.- Records excellent except those below 100 second-feet, which are good, and those for periods of ice effect, which are fair. Flow regulated by power plant and reservoirs above station.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 9-17)

Oct. 1 to Nov. 17

3.1	87	3.9	251
3.3	121	4.2	342
3.6	181	4.6	490

Nov. 18 to Sept. 30

2.4	25	3.3	133	5.0	670
2.6	38	3.6	194	5.5	890
2.8	56	4.0	307	6.2	1,240
3.0	82	4.5	475		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	258	248	150	155	115	250	945	167	149	160	89
2	113	246	250	90	155	110	231	1,040	180	54	163	88
3	111	251	249	120	150	115	281	1,100	161	92	173	52
4	146	238	229	130	125	100	265	1,100	108	78	147	64
5	163	239	172	130	125	*60	260	1,140	133	81	121	86
6	141	230	*223	110	75	110	260	1,220	152	97	48	91
7	152	217	155	110	135	145	252	1,240	102	107	134	102
8	149	248	195	90	140	158	*244	1,230	121	86	109	85
9	178	356	190	40	110	155	229	1,140	89	39	94	83
10	136	398	195	100	115	70	371	1,040	81	92	89	37
11	100	431	190	130	120	65	454	894	32	124	107	71
12	106	462	135	130	80	65	638	791	88	104	83	74
13	99	470	195	120	35	163	650	706	109	71	42	99
14	100	439	195	110	100	155	590	638	108	78	113	99
15	107	416	180	100	110	163	551	626	96	103	89	169
16	123	369	150	55	80	168	520	566	96	69	116	178
17	104	323	105	100	90	164	539	542	93	127	90	92
18	155	294	105	90	115	158	518	512	30	98	89	175
19	155	269	85	90	125	105	510	481	154	90	50	167
20	168	219	170	90	60	125	547	458	178	107	29	124
21	182	231	200	110	90	80	601	436	164	104	61	148
22	180	255	190	120	130	175	623	305	151	121	52	140
23	172	247	195	60	140	169	642	215	151	116	58	96
24	126	236	130	115	105	170	732	215	137	112	64	115
25	178	197	95	120	105	125	854	223	120	162	64	120
26	202	241	70	100	80	125	940	220	194	102	50	95
27	208	232	165	140	55	145	935	218	181	105	29	150
28	205	175	185	130	90	177	912	180	157	83	59	182
29	205	246	185	110	115	194	881	223	177	75	85	196
30	194	232	190	60	-	224	886	198	132	46	78	177
31	185	-	185	120	-	240	-	219	-	85	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	4,636	208	93	150	1.06	1.21
November	8,665	470	175	289	2.04	2.27
December	5,436	250	70	175	1.23	1.42
Calendar year 1943	105,093	1,600	40	288	2.03	27.51
January	3,270	150	40	105	.739	.86
February	3,110	155	35	107	.754	.81
March	4,293	240	60	138	.972	1.12
April	16,166	940	229	539	3.80	4.23
May	20,061	1,240	180	647	4.56	5.25
June	3,892	194	30	130	.915	1.02
July	2,957	162	39	95.4	.672	.77
August	2,715	173	29	87.6	.617	.71
September	3,444	196	37	115	.810	.90
Water year 1943-44	78,645	1,240	29	215	1.51	20.57

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 7 to Mar. 6, Mar. 10-12, 14, 19-21, 25-27. Discharge in second-feet per square mile and runoff in inches may not represent natural flow because of regulation.
Time basis: Eastern war time. To convert war time to standard time, subtract 1 hour.

Measurements of stream flow in the St. Lawrence River Basin made at points other than gaging stations are given in the following table:

Miscellaneous discharge measurements in St. Lawrence River Basin during water year October 1943 to September 1944

Streams tributary to Lake Superior

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Sept.28	Cisco Lake Outlet.....	Cisco Branch Ontonagon River.	SE¼ sec. 32, T. 45 N., R. 41 W., below Cisco Lake Dam, near Watersmeet, Mich.	7.60
28	....do.....	....do.....	....do.....	27.3
28	....do.....	....do.....	....do.....	59.7
28	....do.....	....do.....	....do.....	123
Nov. 2	Sturgeon River.....	Portage Lake....	Sec. 15, T. 50 N., R. 34 W., below Prickett Dam, near Alston, Mich.	173
Mar. 15	....do.....	....do.....	....do.....	236
20	....do.....	....do.....	....do.....	161
20	....do.....	....do.....	....do.....	179

Streams tributary to Lake Michigan

Oct. 15	Holland Creek.....	Manistique River	NW¼ sec. 34, T. 46 N., R. 14 W., at site of former gaging station, near Seney, Mich.	3.92
Apr. 17	....do.....	....do.....	....do.....	142
Oct. 15	Driggs River.....	....do.....	N½ sec. 36, T. 46 N., R. 15 W., at site of former gaging station, near Seney, Mich.	64.9
Apr. 17	....do.....	....do.....	....do.....	81.7
Oct. 15	Walsh Creek.....	Driggs River....	NW¼ sec. 34, T. 46 N., R. 15 W., at site of former gaging station, near Seney, Mich.	5.38
Apr. 17	....do.....	....do.....	....do.....	106
Nov. 8	Marsh Creek.....	Manistique River	NW¼ sec. 31, T. 46 N., R. 15 W., at site of former gaging station, near Shingleton, Mich.	17.5
Apr. 17	....do.....	....do.....	....do.....	99.3
Oct. 15	Creighton River.....	West Branch Manistique River.	NW¼ sec. 35, T. 46 N., R. 16 W., at site of former gaging station, near Shingleton, Mich.	32.1
Apr. 17	....do.....	....do.....	....do.....	128
Aug. 23	Michigamme River.....	Menominee River.	NW¼ sec. 6, T. 43 N., R. 31 W., below Way Dam, near Crystal Falls, Mich.	24.6
Apr. 14	East Branch Sturgeon River.	Sturgeon River..	NE¼ sec. 20, T. 42 N., R. 28 W., at county road, near Felch, Mich.	43.0
21	....do.....	....do.....	....do.....	36.3
Aug. 22	Coldwater Lake Outlet..	Coldwater River.	SE¼ sec. 21, T. 7 S., R. 6 W., Coldwater, Mich.	3.18
Oct. 4	James Lake Outlet.....	Fawn River.....	Sec. 33, T. 38 N., R. 13 E., near Angola, Ind.	25.5
Feb. 10	....do.....	....do.....	....do.....	31.6
Apr. 25	....do.....	....do.....	....do.....	113
Oct. 5	Sylvan Lake Outlet.....	North Branch Elkhart River.	Sec. 9, T. 35 N., R. 10 E., at Rome City, Ind.	5.79
Feb. 11	....do.....	....do.....	....do.....	9.88
Oct. 8	Bear Lake Outlet.....	South Branch Elkhart River.	Sec. 17, T. 33 N., R. 9 E., at Wolflake, Ind.	.2
Feb. 16	....do.....	....do.....	....do.....	.95
Oct. 7	Syracuse Lake Outlet...	Turkey Creek....	Sec. 5, T. 35 N., R. 7 E., at Syracuse, Ind.	7.28
Jan. 8	....do.....	....do.....	....do.....	7.95
Apr. 22	....do.....	....do.....	....do.....	167
Aug. 11	....do.....	....do.....	....do.....	.6
July 20	Portage River.....	St. Joseph River	Sec. 3, 10, T. 4 S., R. 10 W., Vicksburg, Mich.	20.1
Aug. 22	Diamond Lake Outlet....	Christian Creek.	Cassopolis, Mich.....	0
May 11	Duck Lake ditch.....	Battle Creek....	Springport, Mich.....	5.70
July 20	....do.....	....do.....	....do.....	1.03
May 11	Narrow Lake Outlet.....	....do.....	Brookfield, Mich.....	18.8
July 20	....do.....	....do.....	....do.....	1.07
Aug. 23	Gull Lake Outlet.....	Kalamazoo River.	Yorkville, Mich.....	.77
23	Gun River.....	....do.....	Sec. 6, T. 2 N., R. 10 W., Shelbyville, Mich.	0
Mar. 30	Portage River.....	Grand River.....	SW¼ sec. 21, T. 1 S., R. 2 E., near Munith, Mich.	56.7
June 9	....do.....	....do.....	....do.....	20.8
July 27	....do.....	....do.....	....do.....	.75
Aug. 30	....do.....	....do.....	....do.....	.15
Mar. 30	Trist Branch Portage River.	Portage River...	SW¼ sec. 33, T. 1 S., R. 2 E., near Munith, Mich.	30.1
June 9	....do.....	....do.....	....do.....	7.31
July 27	....do.....	....do.....	....do.....	3.12
Aug. 30	....do.....	....do.....	....do.....	2.34
Mar. 30	Portage Lake Inlet.....	....do.....	SE¼ sec. 6, T. 2 S., R. 2 E., near Munith, Mich.	4.47
June 9	....do.....	....do.....	....do.....	3.23
July 27	....do.....	....do.....	....do.....	2.36
Aug. 30	....do.....	....do.....	....do.....	1.92
30	....do.....	....do.....	....do.....	1.73
May 5	Lake Creek.....	Grand River.....	N½ sec. 36, T. 6 N., R. 8 W., Clarksville, Mich.	8.41
Apr. 10	Backus Creek.....	Houghton Lake...	Sec. 4, T. 22 N., R. 2 W., Prudenville, Mich.	21.7
24	....do.....	....do.....	....do.....	44.1
Aug. 30	Whitefish Lake Outlet..	Tamarack Creek..	Pierson, Mich.....	.60
9	Brooks Creek.....	Little Cedar Creek.	Sec. 10, T. 12 N., R. 14 W., Fremont, Mich.	2.59
10	Silver Lake Outlet.....	Lake Michigan...	Mears, Mich.....	6.10
Jan. 20	Big Sable River.....	....do.....	Ludington, Mich.....	149
Feb. 15	....do.....	....do.....	....do.....	176
Mar. 22	....do.....	....do.....	....do.....	211

Miscellaneous discharge measurements in St. Lawrence River Basin during water year October 1943 to September 1944--Continued

Streams tributary to Lake Michigan--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 29	Portage Creek	Manistee River	Grayling, Mich.	14.6
Nov. 22	....do	....do	....do	39.8
Dec. 17	....do	....do	....do	28.3
Mar. 17	....do	....do	....do	25.8
May 10	Crystal Lake Outlet	Betsie River	Beulah, Mich.	36.8
Sept. 19	....do	....do	....do	6.05
Mar. 20	Six Tile Creek	Jordan River	Sec. 6, T. 30 N., R. 5 W., Alba, Mich.	8.11

Streams tributary to Lake Huron

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Aug. 23	Trout Brook	Pine River	NE¼ sec. 22, T. 44 N., R. 4 W., Rudyard, Mich.	4.66
23	Silver Creek	....do	NE¼ sec. 18, T. 43 N., R. 2 W., Rudyard, Mich.	2.33
Oct. 28	Hunt Creek	Thunder Bay River.	Sec. 25, T. 29 N., R. 2 E., Lewiston, Mich.	22.7
Apr. 6	....do	....do	....do	21.3
Oct. 28	East Fish Lake Outlet	Fuller Creek	NE¼ sec. 34, T. 29 N., R. 2 E., Lewiston, Mich.	1.56
Apr. 6	....do	....do	....do	1.50
Oct. 28	Fuller Creek	Hunt Creek	S½NE¼ sec. 35, T. 29 N., R. 2 E., Lewiston, Mich.	6.51
Apr. 6	....do	....do	....do	7.66
July 13	Pine River	Au Sable River	S½ sec. 36, T. 25 N., R. 8 E., Oscoda, Mich.	105
Aug. 16	East Branch Au Gres River.	Au Gres River	E½ sec. 8, T. 22 N., R. 6 E., Whittemore, Mich.	18.6
16	Gullay Creek	East Branch Au Gres River.	W½ sec. 9, T. 22 N., R. 6 E., Whittemore, Mich.	12.8
4	Ogemaw Creek	Rifle River	NE¼ sec. 30, T. 22 N., R. 2 E., West Branch, Mich.	8.86
Oct. 21	Saginaw River	Saginaw Bay	Sec. 24, T. 12 N., R. 4 E., at Saginaw, Mich.	1,700
Mar. 3	....do	....do	....do	9,460
June 23	....do	....do	....do	1,530
8	North Fork Mill Creek	Mill Creek	T. 2 S. on line between sec. 1, R. 3 E., and sec. 6, R. 4 E., near Chelsea, Mich.	7.56
July 26	....do	....do	....do	2.50
Aug. 29	....do	....do	....do	1.11
June 8	....do	....do	NE¼ sec. 8, T. 2 S., R. 4 E., near Chelsea, Mich.	16.4
July 26	....do	....do	....do	3.10
Aug. 29	....do	....do	....do	1.44
June 8	Fourmile Lake Outlet	North Fork Mill Creek.	NW¼ sec. 9, T. 2 S., R. 4 E., near Chelsea, Mich.	3.26
July 26	....do	....do	....do	.07
Aug. 29	....do	....do	....do	0
12	Saline River	Raisin River	Sec. 34, T. 3 S., R. 5 E., Saline, Mich.	1.66
Sept. 9	....do	....do	....do	1.86
Aug. 12	Unnamed stream	Saline River	NE¼ sec. 34, T. 3 S., R. 5 E., near Saline, Mich.	.42
Sept. 9	....do	....do	....do	.58
Aug. 12	....do	....do	NW¼ sec. 36, T. 3 S., R. 5 E., near Saline, Mich.	1.72
Sept. 9	....do	....do	....do	1.99

Streams tributary to Lake Erie*

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
1943				
Oct. 4	Round Lake Outlet	West Branch St. Joseph River.	Sec. 17, T. 38 N., R. 15 E., near Ray, Ind.	0
1944				
Feb. 10	....do	....do	....do	2.25
Apr. 25	....do	....do	....do	18.9
1943				
Oct. 4	Hamilton Lake Outlet	Fish Creek	Sec. 33, T. 36 N., R. 14 E., at Hamilton, Ind.	1.10
1944				
Feb. 10	....do	....do	....do	3.08
Aug. 1	....do	....do	....do	.2
1943				
Oct. 4	Cedar Lake Outlet	Cedar Creek	Sec. 30, T. 35 N., R. 13 E., 3 miles northwest of Waterloo, Ind.	2.37
1944				
Feb. 11	....do	....do	....do	2.61
Apr. 24	....do	....do	....do	170
Aug. 1	....do	....do	....do	.15
1942				
Oct. 14	Miami & Erie Canal	Maumee River	Florida, Ohio	31.4
Nov. 11	....do	....do	....do	40.6
Dec. 15	....do	....do	....do	23.0
1943				
Feb. 24	....do	....do	....do	†28.0
Mar. 11	....do	....do	....do	26.2
Apr. 6	....do	....do	....do	18.6
May 13	....do	....do	....do	57.0
June 15	....do	....do	....do	31.4
July 20	....do	....do	....do	42.4
Aug. 24	....do	....do	....do	32.8
Sept. 21	....do	....do	....do	29.2
Oct. 12	....do	....do	....do	28.6
Nov. 2	....do	....do	....do	27.8
Dec. 14	....do	....do	....do	25.3

* Includes measurements made during water year October 1942 to September 1943 but not heretofore published.

† Obtained from rating curve.

Miscellaneous discharge measurements in St. Lawrence River Basin during water year October 1943 to September 1944--Continued

Streams tributary to Lake Erie--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
1944				
Jan. 11	Miami & Erie Canal	Maumee River	Florida, Ohio	23.9
Feb. 28	do	do	do	28.2
Mar. 28	do	do	do	21.6
Apr. 25	do	do	do	28.9
May 25	do	do	do	21.0
June 23	do	do	do	24.2
July 26	do	do	do	23.9
Aug. 22	do	do	do	25.9
Sept.19	do	do	do	9.36
1943				
Sept.16	East Branch Black River.	Black River	Elyria, Ohio	3.38
Oct. 11	do	do	do	1.09
Nov. 6	do	do	do	7.62
Dec. 10	do	do	do	9.73
1944				
Jan. 6	do	do	do	36.4
Feb. 4	do	do	do	17.1
18	do	do	do	11.4
Mar. 7	do	do	do	2,100
29	do	do	do	187
Apr. 12	do	do	do	3,370
13	do	do	do	1,380
14	do	do	do	361
May 2	do	do	do	43.9
June 2	do	do	do	16.1
30	do	do	do	5.97
1943				
Sept.30	Cuyahoga River	Lake Erie	Hiram, Ohio	46.2
Oct. 11	do	do	do	49.0
Nov. 7	do	do	do	51.5
Dec. 6	do	do	do	45.6
1944				
Jan. 8	do	do	do	60.0
Feb. 8	do	do	do	94.8
Mar. 7	do	do	do	376
30	do	do	do	268
May 1	do	do	do	126
June 9	do	do	do	48.8
July 3	do	do	do	40.2
25	do	do	do	21.6
Aug. 30	do	do	do	42.6
Sept.30	do	do	do	32.1
Feb. 5	Little Cuyahoga River.	Cuyahoga River	300 feet above Springfield Lake Outlet, at Akron, Ohio.	15.8
Mar. 11	do	do	do	25.2
Apr. 6	do	do	do	22.6
May 9	do	do	do	27.7
June 8	do	do	do	13.8
July 5	do	do	do	12.7
31	do	do	do	10.4
Aug. 29	do	do	do	10.0
1942				
Nov. 5	do	do	At site of former gaging station, below Springfield Lake Outlet, at Akron, Ohio	16.8
Dec. 14	do	do	do	19.3
1943				
Jan. 11	do	do	do	53.4
Feb. 11	do	do	do	98.9
Mar. 16	do	do	do	137
Apr. 15	do	do	do	38.1
May 15	do	do	do	48.1
June 16	do	do	do	57.4
July 12	do	do	do	70.2
Aug. 9	do	do	do	26.8
Sept.14	do	do	do	17.8
Oct. 14	do	do	do	25.8
Nov. 12	do	do	do	21.9
Dec. 10	do	do	do	21.8
1944				
Jan. 7	do	do	do	23.9
Feb. 5	do	do	do	22.0
Mar. 11	do	do	do	32.6
Apr. 6	do	do	do	31.2
May 9	do	do	do	37.5
June 8	do	do	do	23.4
July 5	do	do	do	20.0
31	do	do	do	19.5
Aug. 29	do	do	do	17.6
Feb. 5	Fritch (Wingfoot) Lake Outlet.	Little Cuyahoga River.	Suffield Station, Ohio	3.81
Mar. 11	do	do	do	1.07
Feb. 5	Springfield Lake Outlet.	do	400 feet below Massillon road, at Akron, Ohio.	2.63
Mar. 11	do	do	do	3.39
Apr. 6	do	do	do	3.14
May 9	do	do	do	5.22

Miscellaneous discharge measurements in St. Lawrence River Basin during water year October 1943 to September 1944--Continued

Streams tributary to Lake Erie--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
1944				
June 8	Springfield Lake Outlet.	Little Cuyahoga River.	400 feet below Massillon road, at Akron, Ohio.	1.04
July 5	....do.....	....do.....	....do.....	.26
31	....do.....	....do.....	....do.....	.13
Aug. 29	....do.....	....do.....	....do.....	.13
Feb. 5	....do.....	....do.....	400 feet above mouth, at Akron, Ohio....	6.81
1943				
Aug. 21	Tinkers Creek.....	Cuyahoga River..	Bedford, Ohio.....	7.36
Sept.21	....do.....	....do.....	....do.....	9.31
Oct. 12	....do.....	....do.....	....do.....	6.13
1944				
Aug. 22	Walnut Creek.....	Lake Erie.....	Weis Library, Pa.....	.938
Sept.20	....do.....	....do.....	....do.....	1.10
Aug. 24	Mill Creek.....	....do.....	Erie, Pa.....	1.65
Sept.21	....do.....	....do.....	....do.....	1.08

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